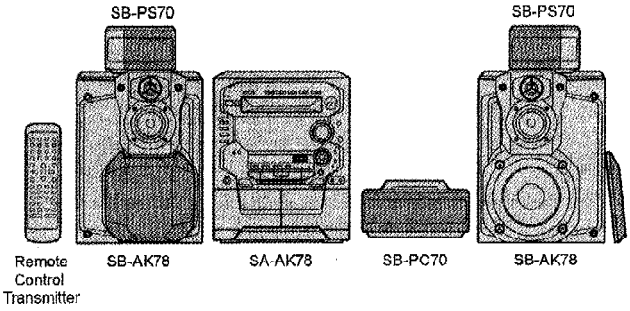
ORDER NO. MD0005090C3

Service Manual

CD Stereo System

COMPACT disc DIGITAL AUDIO



SA-AK78

Colour

(S)... Silver Type

Area

(GC)... Asia, Latin America, Africa and Middle Near East

TAPE SECTION

AR2 MECHANISM SERIES

CD SECTION

RAE0152Z-3 TRAVERSE DECK SERIES

Specification

■ Amplifier Section		
Front speaker power output		
Power output		
PMPO	3400 W	
RMS power output		
THD 10%, both channels driven		
Total	200 W per channel (6Ω)	
LOW 100 Hz		120 W per channel (6Ω)
MID 1 kHz		40 W per channel (6Ω)
HIGH 10 kHz		40 W per channel (6Ω)
Power output in		
Dolby Pro Logic mode		
PMPO Total	4000 W	
RMS power output		
THD 10%		
Total	500 W	
Front LOW 100 Hz		120 W per channel (6Ω)
Front HIGH 1 kHz		40 W per channel (6Ω)
Center 1 kHz		90 W per channel (8Ω)
Surround 1 kHz		45 W per channel (8Ω)
Input sensitivity		
AUX 1, AUX 2		250 mV
MIC	0.7 mV	
Input impedance		
AUX 1, AUX 2		10 kΩ
MIC	600 Ω	
■ FM Tuner Section		
Frequency range		87.50-108.00 MHz (50 kHz step)
Sensitivity		1.8μV (IHF)
S/N 26 dB		1.5μV
Antenna terminal(s)		75 Ω unbalanced
■ AM Tuner Section		
Frequency range		522-1629 kHz (9kHz step)
	520-1630 kHz (10kHz step)	
Sensitivity		
S/N 20 dB		500 μV/m
■ Cassette Deck Section		
Track system		4 track, 2 channel
Heads		
Record/playback		Solid permalloy head
Erasure		Double gap ferrite head
Motor		DC servo motor
Recording system		AC bias 100kHz
Erasing system		AC erase 100kHz
Tape speed		4.8 cm/s

Panasonic®

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SA-AK78

Overall frequency reponse (+3, -6 dB at DECK OUT)	
NORMAL (TYPE I)	35- Hz - 14 kHz
HIGH (TYPE II)	35- Hz - 14 kHz
S/N	50dB (A weighted)
Wow and flutter	0.18 % (WRMS)
Fast forward and rewind time	Approx. 120 seconds with C-60 cassette tape
■ CD Section	
Sampling frequency	44.1kHz
Decoding	16 bit linear
Frequency response	20 Hz - 20 kHz (+1, -2 dB)
Wow and flutter	Below measurable limit
Digit filter	8 fs
D/A converter	MASH (1 bit DAC)
■ General	
Power supply	AC 110V/127V/220V/230-240V, 50/60Hz
Power consumption	188 W
Standby	
ECO	0.8 W
NORMAL	12 W
Dimensions (WxHxD)	270 x 330 x 339 mm
Weight	8.8 kg

Notes :

1. Specifications are subject to change without notices.

Weight and dimensions are approximate.

2. Total harmonic distortion is measured by the digital spectrum analyzer.

■ System: SC-AK78 (GC)

Music Center : SA-AK78 (GC)
Front Speaker : SB-AK78 (GC)
Center Speaker : SB-PC70 (GC)
Surround Speaker : SB-PS70 (GC)

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1 Before Use

Be sure to disconnect the mains cord before adjusting the voltage selector. Use a minus (-) screwdriver to set the voltage selector (on the rear panel) to the voltage setting for the area in which the unit will be used. (If the power supply in your area is 117V or 120V, set to the "127V" position.) Note that this unit will be seriously damaged if this setting is not made correctly. (There is no voltage selector for some countries; the correct voltage is already set.)

2 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C566 - C569, C591 through a 10Ω, 5W resistor to ground.

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

- Current consumption at AC 110V, 127V, 220V, 230-240V, 50 Hz in NO SIGNAL mode should be ~620mA, ~590mA, ~330mA and ~300mA respectively.

3 Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

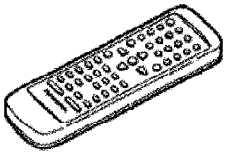
1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:

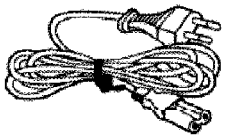
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

4 Accessories

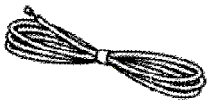
Note : Refer to Packing Materials & Accessories for part number.



Remote Control
Transmitter

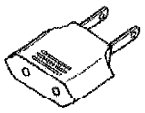


AC power supply cord



FM indoor antenna

AM Loop antenna

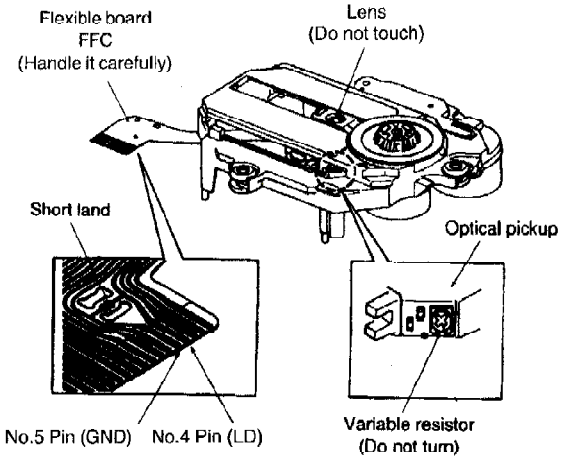


Power plug
adaptor

5 Handling Precautions For Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body.

So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).



● Handling of traverse deck (optical pickup)

1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. The short land between the No.4 (LD) and No.5 (GND) pins on the flexible board (FFC) is shorted with a solder build-up to prevent damage to the laser diode.

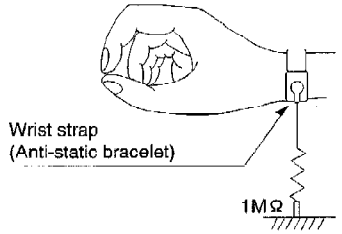
   To connect to the PC board, be sure to open by removing the solder build-up, and finish the work quickly.
3. Take care not to apply excessive stress to the flexible board (FFC board).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

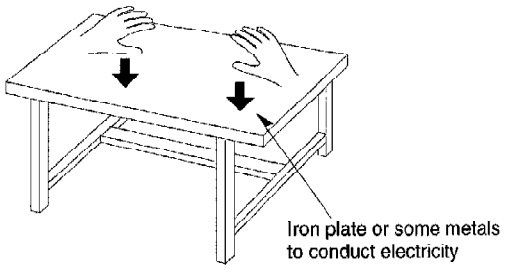
● Grounding for electrostatic breakdown prevention

1. Human body grounding

   Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding

   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.





Caution :

The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).

Caution when Replacing the Traverse Deck :

The traverse deck has a short point shorted with solder to protect the laser diode against electrostatics breakdown. Be sure to remove the solder from the short point before making connections.

6 Precaution of Laser Diode

Caution :

This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick up lens.
Wavelength : 780 nm
Maximum output radiation power from pick up : 100 μW/VDE
Laser radiation from pick up unit is safety level, but be sure the followings:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

ACHTUNG :

Dieses Produkt enthält eine Laserdiode. Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit

abgestrahlt.
Wellenlänge : 780nm
Maximale Strahlungsleistung der Lasereinheit :100W/VDE
Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

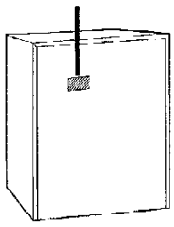
1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinhit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.

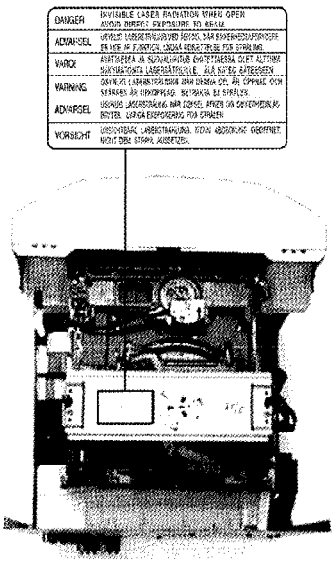
ADVARSEL: I dette a apparat anvendes laser.

CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

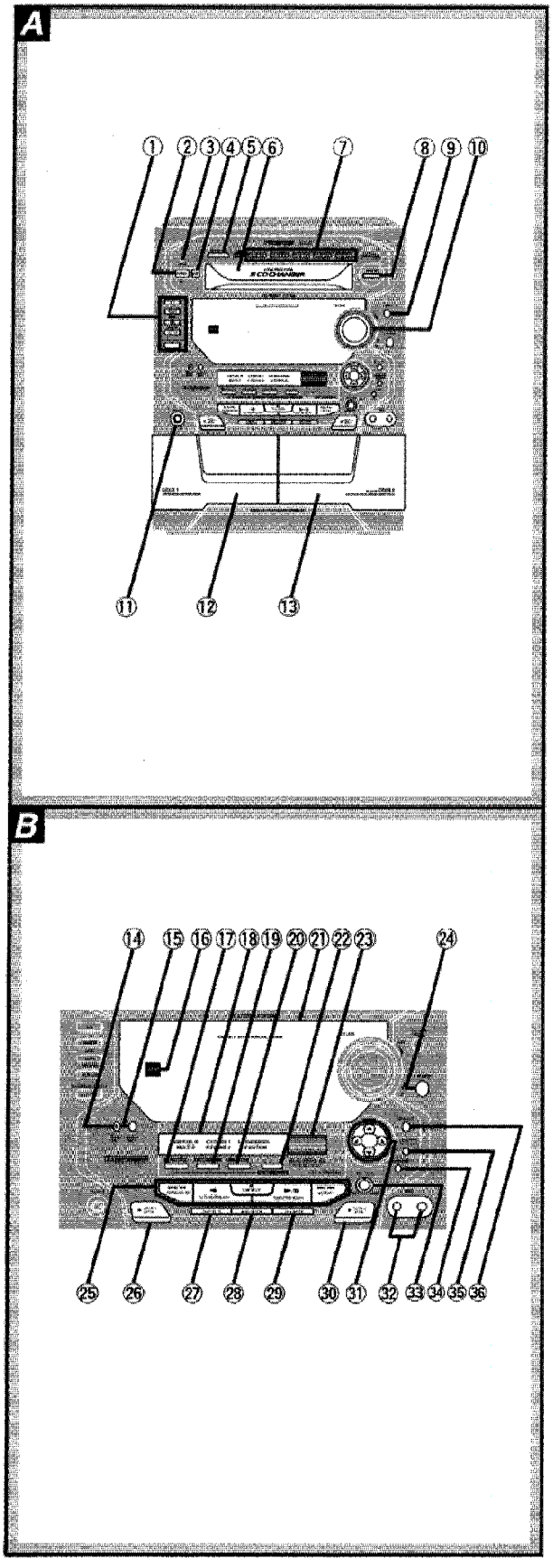
■ **Use of Caution Labels**

LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT





7 Operation Procedures

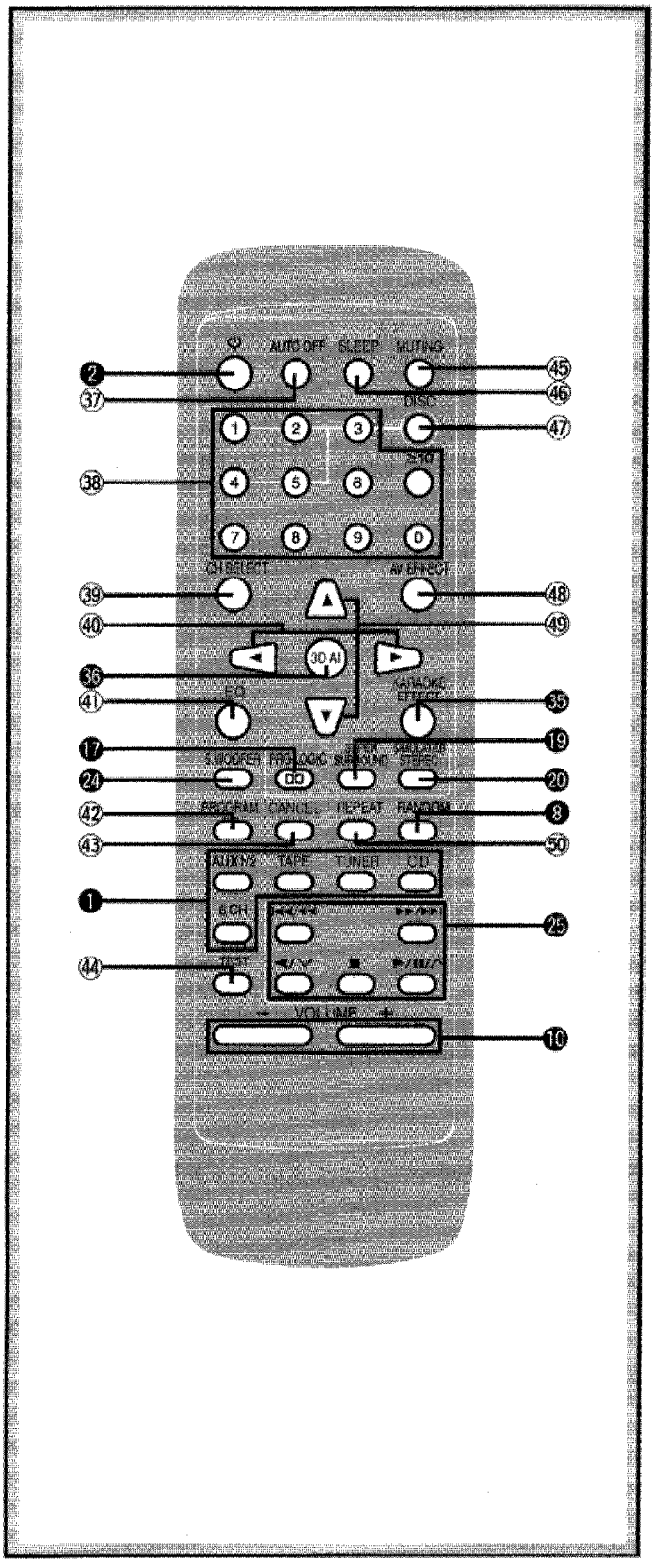


A Main unit

No.	Name
①	Input select buttons and indicators (CD, TUNER BAND, TAPE DECK 1/2, AUX 1/2, 6CH DISCRETE INPUT)
②	Standby/on switch (⏻/I , POWER)
	Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
③	AC supply indicator (AC IN)
	This indicator lights when the unit is connected to the AC mains supply.
④	Eco mode button (MODE)
⑤	CD manager button (CD MANAGER)
⑥	Disc tray
⑦	Disc select, disc tray open/close buttons (CD1-CD5 CD DIRECT PLAY, ▲ OPEN)
⑧	Random play button (RANDOM)
⑨	Display select/demonstration button (-DISPLAY/–DEMO)
⑩	Volume control (VOLUME)
⑪	Headphones jack (PHONES)
⑫	Deck 1 cassette holder
⑬	Deck 2 cassette holder

B Center console

⑭ Play timer/record timer button and indicator (◴ PLAY/ ◴ REC)
⑮ Clock/timer button (CLOCK/TIMER)
⑯ 3D AI lamp (3D AI)
⑰ DOLBY PRO LOGIC on/off, Tri-amp control [LOW] button and indicator (⊡⊡ PRO LOGIC, LOW)
⑱ AV effect indicators (VIRTUAL R, MULTI R, C.FOCUS 1, C.FOCUS 2, 3-D ENHANCED, S.POSITION)
⑲ Super surround on/off, Tri-amp control [MID] button and indicator (SUPER SURROUND, MID)
⑳ Simulated stereo on/off, Tri-amp control [HIGH] button and indicator (SIMULATED ST, HIGH)
㉑ Display
㉒ Tri-amp control on/off button and indicator (TRI-AMP CONTROL)
㉓ Jog control (SOUND CONTROL JOG, PUSH (AV EFFECT))
㉔ Super woofer on/off button and indicator (S.WOOFER)
㉕ Basic operating buttons
Functions change according to the source.
㉖ Deck1 open button (▲ DECK1 OPEN)
㉗ Tape edit button (TAPE EDIT)
㉘ Recording start/stop button (● REC/STOP)
㉙ Reverse mode select button (REV MODE)
㉚ Deck2 open button (▲ DECK2 OPEN)
㉛ Joy stick (◄, ►, ▲, ▼)
㉜ Microphone jacks (MIC)
㉝ Microphone volume control (MIC VOL)
㉞ Karaoke button (KARAOKE)
㉟ KARAOKE effect button (KARAOKE EFFECT)
㊱ 3D AI EQ button (3D AI EQ)



Remote control

Buttons such as ❷ function is exactly the same way as the buttons on the main unit.

No.	Name
❷	Standby/on button (⏻)
㊲	Auto power-off (AUTO OFF)
㊳	Numeric buttons (≥10, 1– 0)
㊴	Channel select button (CH SELECT)
㊵	Select buttons (◀ , ▶)
㊱	3D AI select button (3D AI)
㊶	EQ select button (EQ)
⓱	DOLBY PRO LOGIC on/off button (□□ PRO LOGIC)
㉔	Super woofer on/off button (S.WOOFER)
㊷	Program button (PROGRAM)
㊸	Cancel button (CANCEL)
❶	Input select buttons (CD, TUNER, TAPE, AUX1/2, 6CH)
㊹	Test signal output button (TEST)
㊺	Muting button (MUTING)
㊻	Sleep button (SLEEP)
㊼	Disc button (DISC)
㊽	AV effect button (AV EFFECT)
㊾	Select button (▲, ▼)
㉟	KARAOKE effect button (KARAOKE EFFECT)
⓳	Super surround on/off button (SUPER SURROUND)
⓴	Simulated stereo on/off button (SIMULATED STEREO)
❽	Random button (RANDOM)
㊿	Repeat button (REPEAT)
㉕	Reverse side playback button (◀/∨)
㉖	Skip/search buttons (I◀◀/◀◀ , ▶▶/▶▶I)
㉕	Play/pause button (▶/II/∧)
㉕	Stop button (■)
❿	Volume buttons (– VOLUME +)

8 Self-Diagnostic Display Function

8.1. Self-diagnostic display

This unit is equipped with a self-diagnostic display function which, if a problem occurs, will display an error code corresponding to the problem.

Use this function when performing maintenance on the unit.

8.2. How to enter the Self-Diagnostic Function

1. Turn the unit on with no cassette in the deck. (Select the tape function)
2. Press and hold the "STOP/TUNE MODE" button for at least 2 seconds.
3. While pressing the "STOP/TUNE MODE" button, press "FF/MEMORY" button for at least 2 seconds.
4. "T" will appear on the FL display. (unit is in the Self-Dianostic Function)

8.3. Cassette Mechanism Test (For error code H01, H02, H03, F01, F02)

1. Press "TAPE, DECK 1/2" to select Deck 2.
2. Load a cassette tape with the erasure prevention tab, remove from left side only and close the cassette holder.
3. Press "FAST FORWARD MEMORY/NEXT" (Tape will be stop after 2 seconds)
4. Load a cassette tape with the erasure prevention tab, remove from right side only and close the cassette holder.
5. Press "REVERSE FM MODE/BP/PREV" (Tape will be stop after 2 seconds)
6. Load a pre-recorded tape with both side record tabs intact and close the cassette holder.
7. Press "PLAY TUNE/TIME ADJ SELECT" (After TPS function, tape will stop automatically)
8. Press "REC/STOP" (Tape will not move)
9. Press "STOP TUNE MODE" to indicate Error code.
   - If several problem exist, error code will change each time when "■ TUNE MODE/PBC" is pressed. (e.g. H01 → H03 → F01 .....etc.)
10. Press "TAPE, DECK 1/2" to select Deck 1.
11. Repeat step 2 to 9 to test Deck 1. (Tape Deck 1 will not check H02 because of no recording function)

8.4. CD Mechanism Test (F15, F26, F16, F17, F27, F28, F29, H15, F75)

1. Press "CD".
2. Press "CD MANAGER".
3. Press "■ TUNE MODE" to indicate Error Code.
   - If several problem exist, error code will change each time when "■ STOP TUNE MODE" is pressed. (e.g. F15 → F26 → F16 ..... etc.)

8.5. To clear all Error code

1. Press "STOP TUNE MODE/PBC" button for 5 seconds.
2. FL indicator shows "CLEAR" for 1 second and change to "T".

8.6. How to get out from Self-Diagnostic function

1. Press "Power" button OFF.

8.7. Power Amplifier Failure (F61)

1. When power amplifier fail, F61 will indicate automatically.

9 Description of Error Code

9.1. Error detection for Cassette Mechanism block

No.	Error	Error Display	Problem condition
1	MODE SW detection error	H01	Faulty operation of cassette mechanism. Faulty contact or short-circuit of mechanism mode switch (S951, S971).
2	REC INH SW detection error	H02	Recording not possible. Faulty contact or short-circuit of REC INH switch (S974, S975).
3	HALF SW detection error	H03	Playback cannot perform. Faulty contact or short-circuit of HALF siwtch (S952, S972).
4	Reel Pulse detection error	F01	The tape advances slightly and then stops. Faulty reel pulse, faulty hole detect IC (IC951, IC971).
5	TPS abnormal	F02	Cassette deck will not perform TPS function. Faulty playback EQ/recording amplifier IC (IC101).

9.2. Error detection for CD/Changer block

No.	Error	Error Display	Problem condition
1	REST SW detection error	F15	CD does not function. This error occurs when the Optical Pick Up REST SW (S701) is not detected within the specified time (about 8 seconds)
2	CD tray opens automatically	F16	CLAMP switch (S4) NG (Check & Replace)
3	Does not startup when [PLAY] button is pressed	F17	BOTTOM switch (S5) NG (Check & Replace)
4	Transmission error between CD servo LSI and micon	F26	CD does not function. This error occurs when the POWER is ON for the CD block and an error is detected after the transmission has started.
5	Startup fails even when you insert CD or the selected disc tray does not open	F27	Tray 1 detect switch or Tray 2 detect switch NG (Check & Replace)
6	Cannot insert CD	F28	Tray 1 detect switch NG (Check & Replace)
7	Cannot eject CD	F29	Check if disc is stuck. Tray 2 detect switch NG (Confirm & Replace)
8	CD power error	F75	CD does not function. Check if CDRST is H for SELECTOR at CD. If it is not H after 1 second, it shall be memorised as an error. (IC702)
9	The CD tray closes	H15	CD disc tray detect switch NG (S3) (Check & Replace)

9.3. Power Supply related error detection

No.	Error	Error Display	Problem condition
1	POWER AMP output abnormal	F61	When POWER is switched on, power become off automatically. During normal operation, if DC DET become L, PCNT shall become L and the error display on the left shall be displayed. (IC501)

10 CD Test Mode Function

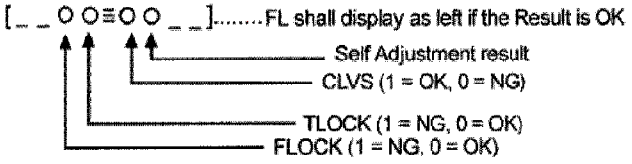
This CD test mode is provided to check CD unit without connecting to changer loading mechanism. This mode shall operate CD PLAY with CD unit being connected only and CD Automatic Alignment result is shown on FL display.

10.1. How to enter the Self-Diagnostic Function

1. Turn the unit on and select the CD function.
2. Press and hold the "STOP/TUNE MODE" button for at least 2 seconds.
3. While pressing the "STOP/TUNE MODE" button, press "FF/MEMORY" button for at least 2 seconds.
4. "CD ΞEST" will appear on the FL display. (unit is in the CD test mode)

10.2. CD Automatically Adjustment result indication

Under CD test mode, pressing the numeric key '0' on the remote controller will display the auto adjustment result. FLOCK, TLOCK and CLVS status shall be shown as below:



During the above display, executing CD PLAY will display auto adjustment result for CD PLAY mode.

11 Measurements and Adjustments

11.1. Cassette Deck Section

- Measurement Condition
  - Reverse-mode seelctor switch: ⟲
  - Tape edit: NORMAL
  - Record timer: OFF
  - Make sure head, capstan and press roller are clean.
  - Judgeable room temperature 20 ± 5 °C (68 ± 9 °F)
- Measuring instrument
  - EVM (Electronic Voltmeter)
  - Digital fre quency counter
- Test tape
  - Head azimuth adjustment (8 kHz, -20 dB); QZZCFM
  - Tape speed gain adjustment (3 kHz, -10 dB); QZZCWAT
  - Playback gain adjustment (315 Hz, 0 dB); QZZCFM
  - CrO2 tape: QZZCRX

11.1.1. Head Azimuth Adjustment (Deck 1/2)

Caution:

- Please replace both azimuth adjustment screws (RHE5152ZB) and springs (RMB0331) simultaneously when readjusting the head azimuth. (shown in Fig. 2)

  Even if you wish to readjust the head azimuth without replacing the screws and springs, a fine adjustment to the azimuth screw and spring.
- Please remove the screw-locking bond left on the head base when replacing the azimuth screw.
- If you wish to readjust the head azimuth, be sure to adjust with adhering the cassette tape closely to the mechanism by pushing the center of cassette tape with your finger. (shown in Fig. 3)

1. Playback the azimuth adjustment portion (8 kHz, -20dB) of the test tape (QZZCFM) in the forward play mode. Vary the azimuth adjusting screw until the output of the R-CH (PB OUT-R) are maximized.
2. Perform the same adjustment in the reverse play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

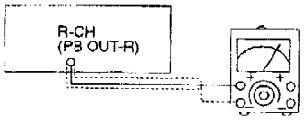


Fig. 1

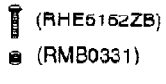


Fig.2

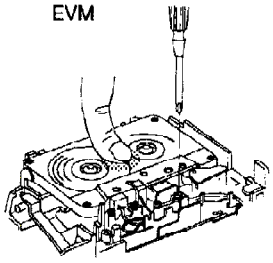


Fig. 3

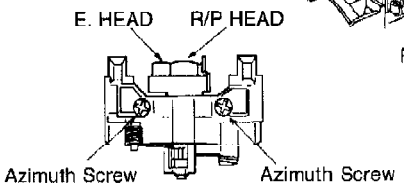
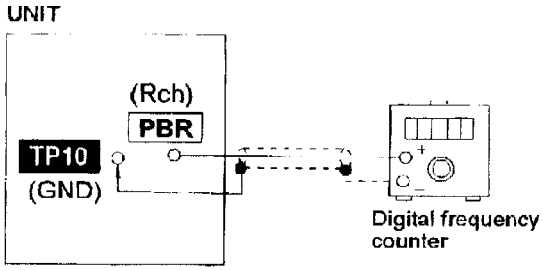


Fig. 4

11.1.2. Tape Speed Adjustment (Deck 1/2)

1. Set the tape edit button to "NORMAL" position.
2. Insert the test tape (QZZCWAT) to DECK 2 and playback (FWD side) the middle portion of it.
3. Adjust Motor VR (DECK 2) for the output value shown below.

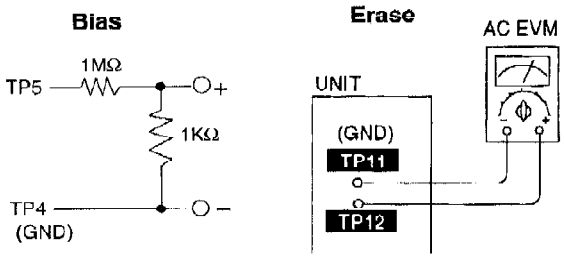
   Adjustment target: 2940 ~ 3060 Hz (NORMAL speed)
4. After alignment, assure that the output frequency of the DECK 2 REV and DECK 1 FWD are within ±45 Hz and ±60 Hz respectively of the value of the output frequency of DECK 2 FWD.



11.1.3. Bias and Erase Voltage Check

1. Set the unit to "AUX" position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and the unit to "REC" mode (use "● REC/STOP" key).
3. Measure and make sure that the output is within the standard value.
4. Insert the CrO2 tape (QZZCRX).
5. Repeat steps 2 and 3.

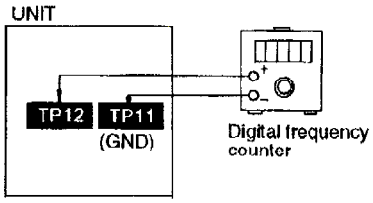
Bias voltage for Deck 2 (Standard value)	: 19 ± 4mV (Normal): 27 ± 5mV (CrO2)
Erase voltage for Deck 2(Standard value)	: more than 100mV (Normal): more than 150mV (CrO2)



11.1.4. Bias Frequency Adjustment (Deck 2)

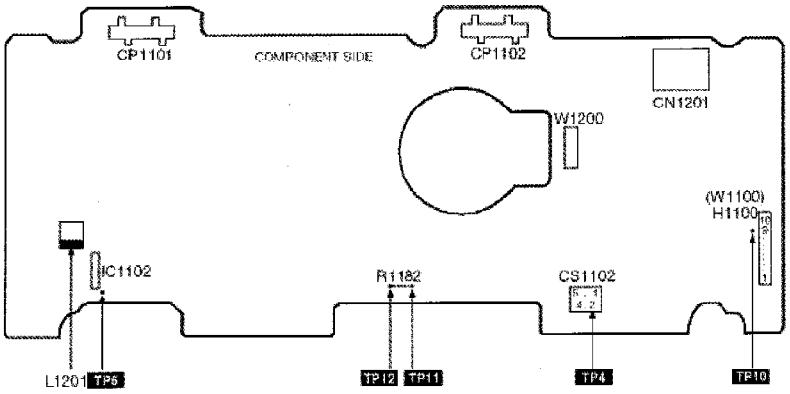
1. Set the unit to "AUX" position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and set the unit to "REC" mode (● use "REC/STOP" key).
3. Adjust L1201 so that the output frequency is within the standard value.

Standard Value: 98 ±8 kHz



11.2. Alignment Points

Cassette Deck Section



12 Terminal Function of IC's

12.1. IC701 (AN8839NSBE2) Servo Amplifier

Pin No.	Mark	I/O	Function
1	PDE	I	Tracking signal input 1
2	PDF	I	Tracking signal input 2
3	VCC	I	Power supply
4	PDA	I	Focus signal input terminal 1
5	PDB	I	Focus signal input terminal 2
6	LPD	I	APC amp input
7	LD	O	APC amp output
8	RF	O	RFsumming output
9	RFIN	I	Detector's input
10	CSBRT	I	Capacitor for OFTR connection
11	CEA	I	Capacitor for HPF amp connection
12	BDO	O	BDO output ("H" : drop out)
13	LDON	I	APC control
14	GND	—	Ground

Pin No.	Mark	I/O	Function
15	/RFDET	O	NRFDET output ("L" : detection)
16	PDOWN	O	Power-down input
17	OFTR	O	OFTR output
18	NC	O	N.C.
19	ENV	O	3T-ENV output
20	NC	I	N.C.
21	NC	I	N.C.
22	TEN	I	TE amp input
23	TEOUT	O	TE amp output
24	FEOUT	O	FE amp output
25	FEN	I	FE amp input
26	VREF	O	Reference voltage output
27	TBAL	I	Tracking balance control
28	FBAL	I	Focus balance control

12.2. IC702 (MN662790RSC) Servo processor/ Digital signal processor/ Digital filter/ D/A converter

No.	Mark	I/O	Function
1	BCLK	O	N.C.
2	LRCK	O	N.C.
3	SRDATA	O	N.C.
4	DVDD1	I	Power supply input (for digital circuit)
5	DVSS1	I	GND (for digital circuit)
6	TX	O	Digital audio interface signal output (Latches data at first transition)
7	MCLK	I	Microprocessor command clock signal input
8	MDATA	I	Microprocessor command data signal input
9	MLD	I	Microprocessor command load signal input
10	SENSE	O	Sense signal output (OFT, FESL,MAGEND,NAJEND,PO SAD,SFG) (Not used, open)
11	/FLOCK	O	Focus servo feeding signal output ("L" : Feed)
12	/TLOCK	O	Tracking servo feeding signal output ("L" : Feed)
13	BLKCK	O	Sub-code block clock signal output (BLKCKf = 75Hz during normal playback)
14	SQCK	I	External clock signal input for sub-code Q resistor
15	SUBQ	O	Sub-code Q code output
16	DMUTE	I	Muting input ("H" : mute)
17	STAT	O	Status signal output (CRC,CUE,CLVS,TTSTVP,F CLV,SQCK)
18	/RST	I	Reset signal input
19	SMCK	O	1/2-diveded clock signal of crystal osscillating at MSEL = "H" (fSMCK = 8.4672 MHz) 1/4-divided clock signal of crystal oscillating at MSEL = "L" (fSMCK = 4.2336 MHz)
20	CSEL	I	Frequency Selection Terminal H = 33.8688 MHz ; L = 16.9344 MHz
21	TRV	O	N.C
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON output ("L" : ON)

No.	Mark	I/O	Function
24	ECM	O	Spindle motor drive signal output(forced mode output)
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	O	N.C.
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output (TVD, ECS, TRD, FOD, FBAL, TBAL) Reference voltage input
30	FBAL	O	Focus balance adjustment output
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input ("H" :detection)
36	OFT	I	Off-track signal input ("H" : off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L" : detection)
39	BDO	I	Dropout signal input ("H" : Dropout)
40	LDON	O	Laser on signal output ("H" : ON)
41	PLLF2	I/O	N.C.
42	DSLF2	O	Tracking Offset alignment output/DSL Balance Output (DA Output)
43	WVEL	O	N.C.
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias terminal (Not used, open)
47	DSLF	I/O	DSL loop filter terminal
48	PLLF	I/O	PLL loop filter terminal
49	VCOF	I/O	VCO loop filter terminal
50	AVDD2	I	Power supply input (for analog circuit)
51	AVSS2	I	GND (for analog circuit)

No.	Mark	I/O	Function
52	EFM	O	EFM signal output
53	PCK	O	PLL extraction clock output (fPCK = 4.321 MHz during normal playback)
54	VCOF2	I/O	VCO Loop filter for 33.8688 MHz conversation terminal for 16.9344 MHz crystal mode, must use other circuit
55	SUBC	O	Sub-code serial data output
56	SBCK	I	Clock input for sub-code serial data
57	VSS	I	GND
58	X1 IN	I	Crystal oscillating circuit input (f = 16.9344MHz)
59	X2 OUT	O	Crystal oscillating circuit input (f = 16.9344 MHz)
60	VDD	I	Power supply input (for oscillating circuit)
61	BYTCK	O	Byte clock output
62	/CLDCK	O	Sub-code frame clock signal output (fCLDCK = 7.35 kHz during normal playback)
63	FCLK	O	Crystal frame clock signal output (fCLK = 7.35 kHz, double = 14.7 kHz)
64	IPFLAG	O	Interpolation flag output ("H" : Interpolation)
65	FLAG	O	Flag output

No.	Mark	I/O	Function
66	CLVS	O	Spindle servo phase synchronizing signal output ("H" : CLV, "L" : rough servo)
67	CRC	O	Sub-code CRC checked output ("H" :OK, "L" :NG)
68	DEMPH	O	De-emphassis ON signal output ("H" :ON)
69	RESY	O	Frame re-synchronizing signal output
70	IOSEL	I	Mode Switching Terminal
71	/TEST	I	Test input
72	AVDD1	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	AVSS1	I	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at "H" level, RSEL="H", at "L" level, RESL="L")
77	IOVOD	I	5V supply input
78	PSEL	I	Test terminal (connected to Gnd)
79	MSEL	I	SMCK oscillating frequency designation input ("L":4.2336 MHz, "H":8.4672 MHz)
80	SSEL	I	SUBQ output mode select ("H":Q-code buffer mode)

12.3. IC703 (AN8739SBE2) Focus coil/ Tracking coil/ Traverse motor/ Spindle motor driver

No.	Mark	I/O	Function
1	/RST	-	RESET output terminal
2	NC	-	N.C.
3	IN2	I	Motor Drive (2) input
4	PC2	I	Turntable motor drive signal ("L :ON)
5	NC	-	N.C.
6	IN1	I	Motor driver (1) input
7	NC	I	N.C.
8	PVCC1	I	Power supply (1) for driver
9	PGND1	-	Ground connection (1) for driver
10	NC	-	N.C.
11	D1-	O	Motor driver (1) reverse-action output
12	D1+	O	Motor driver (1) forward-action output
13	D2-	O	Motor driver (2) reverse-action output
14	D2+	O	Motor driver (2) forward-action output

No.	Mark	I/O	Function
15	D3-	O	Motor driver (3) reverse-action output
16	D3+	O	Motor driver (3) forward-action output
17	D4-	O	Motor driver (4) reverse-action output
18	D4+	O	Motor driver (4) forward-action output
19	NC	-	N.C.
20	PGND2	-	Ground connection (2) for driver
21	PVCC2	I	Power supply (2) for driver
22	NC	-	N.C.
23	VCC	I	Power supply terminal
24	VREF	I	Reference voltage input
25	IN4	I	Motor driver (4) input
26	IN3	I	Motor driver (3) input
27	RSTIN	I	Reset terminal
28	NC	-	N.C.

12.4. IC601 (M38199MF210F) System Microprocessor

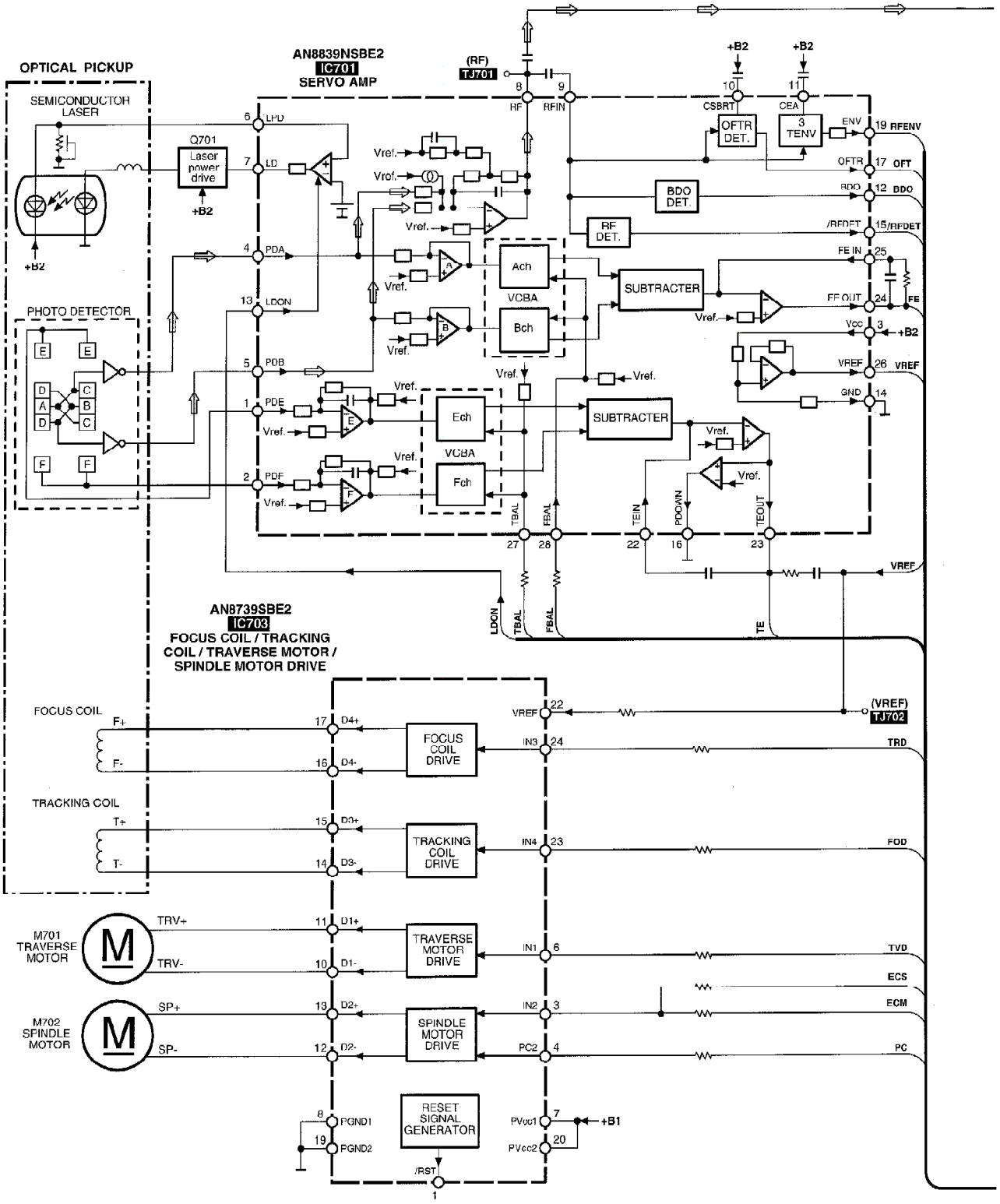
No.	Mark	I/O	Function
1	SP_IN	I/O	SPEANA input
2	DECK2	I/O	Mech condition input 2 (HALF/RECIF/MODE/RECIR)
3	DECK1	I/O	Mech condition input 1 (HALF/MODE/PHOT1/PHOT2)
4	KEY5	I/O	Key 5 input
5	KEY4	I/O	Key 4 input
6	KEY3	I/O	Key 3 input
7	KEY2	I/O	Key 2 input
8	KEY1	I/O	Key 1 input
9	JOG1B	I/O	JOG 1 input B main volume
10	JOG1A	I/O	JOG 1 input A main volume
11	CRT	I/O	CT timer control

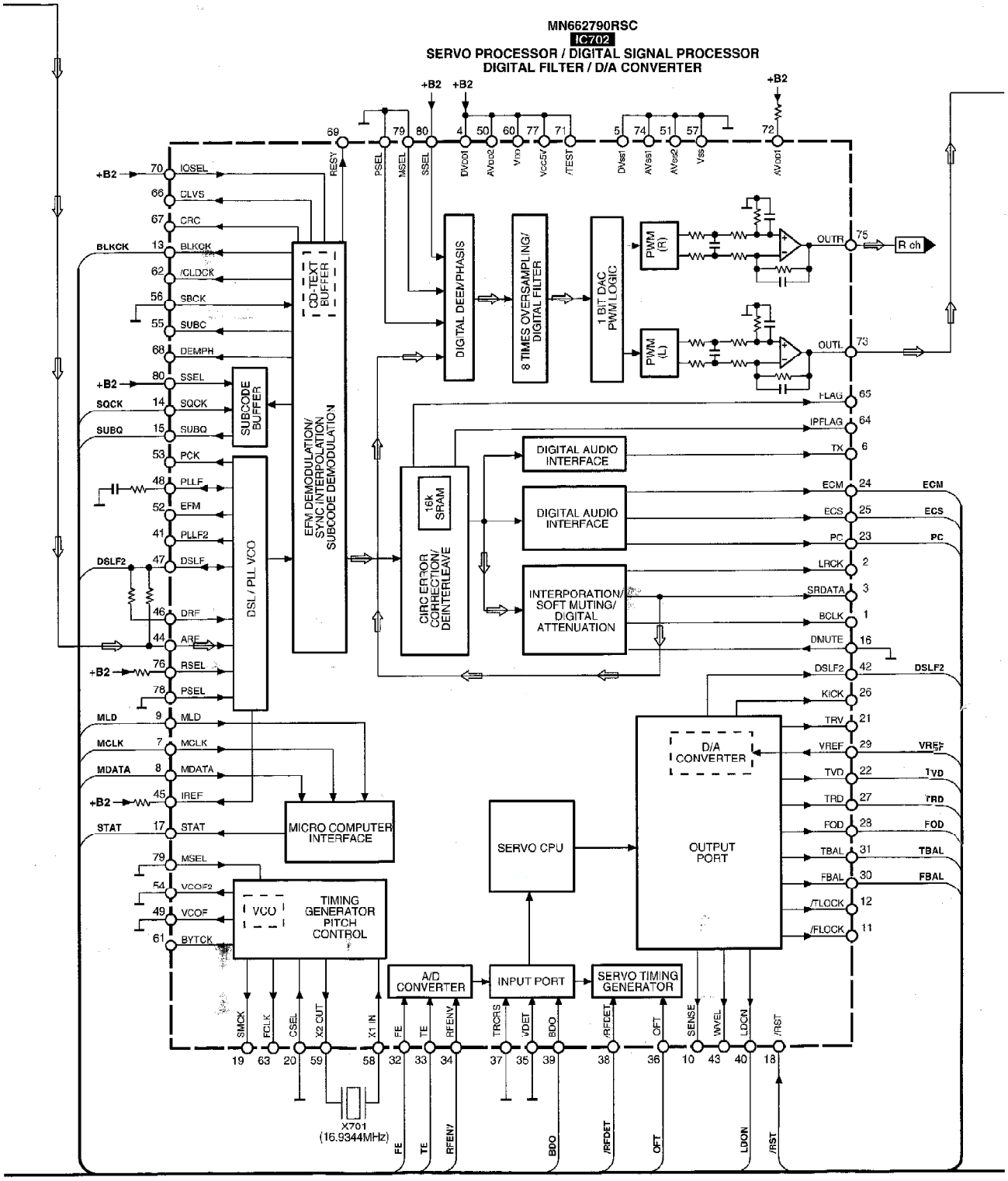
No.	Mark	I/O	Function
12	JOG2B	I/O	JOG 2 input B multi jog
13	JOG2A	I/O	JOG 2 input A multi jog
14	DSPRST	I/O	DSP reset output
15	DSPACK	I/O	DSP ACK input
16	SENSE	I/O	DSP sense input
17	ECO	I/O	ECO output
18	PCNT	I/O	PCNT output
19	MECHSC	I/O	Mecha control CS input
20	MECHCK	I/O	Mecha control clock input
21	MECHSO	I/O	Mecha control data output
22	MECHSI	I/O	Mecha control data input
23	MECHRQ	I/O	Mecha control request output

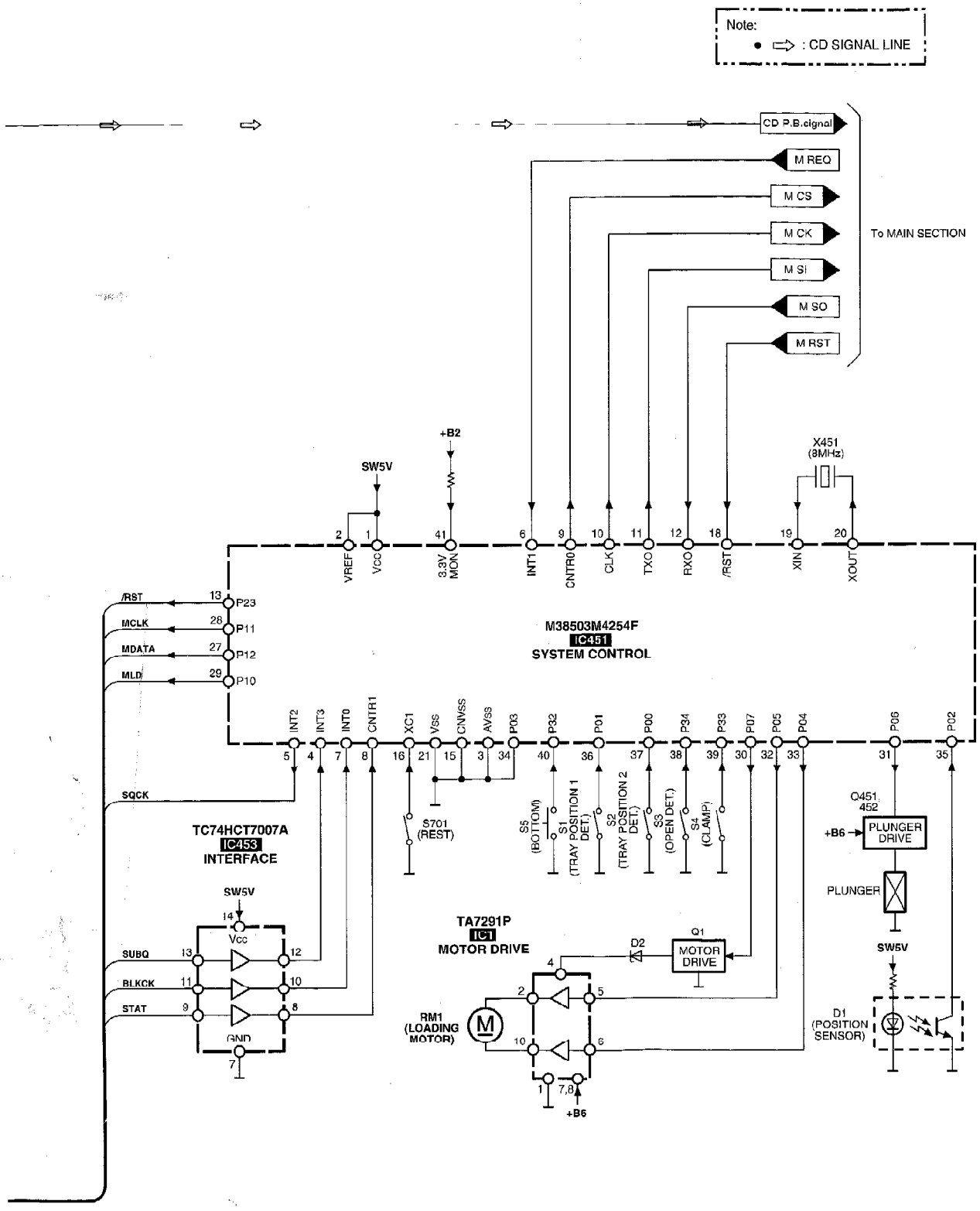
Mark	I/O	Function
SW	I/O	MIC detect SW input(L:NO MIC H:MIC)
ONE	I/O	PHONE detect input (L:NO PHONE H:PHONE)
7	I/O	Serial 7 output (EEPROM IC CS)
6	I/O	Serial 6 output (DSP MPU CS)
5	I/O	Serial 5 output (PLL IC CE)
T	I	Remote control input
4	I/O	Serial output for IC
3	I/O	Serial output for IC
2	I/O	Serial output for IC
1	I/O	Serial output for IC
C	I	AC failure detect input
ET	I	RESET input
N	I/O	X'tal oscillator (f = 32.768 kHz sub clock)
UT	I/O	X'tal oscillator (f = 32.768 kHz sub clock)
	I	X'tal oscillator (f = 8.0 MHz main clock)
T	O	X'tal oscillator (f = 8.0 MHz main clock)
	—	Ground (0V)
1	O	MPU beat proof output 1
2	O	MPU beat proof output 2
	I	Tuner signal detect input
ST	I	Tuner DO/ST input
12- 1	O	LCD grid signal output
33-AND1	O	LCD segment signal output
ION IN	I	Region select signal input
	I	Power supply (+5V)
A	O	Space control A
B	O	Space control B
C	O	Space control C
IN ET	I I	TPS signal input DC detect input
HPS	O	MECHCON reset output
	—	Power supply (-30V)
S		Analog Ground (0V)
F	I	Reference for input

13 Block Diagram

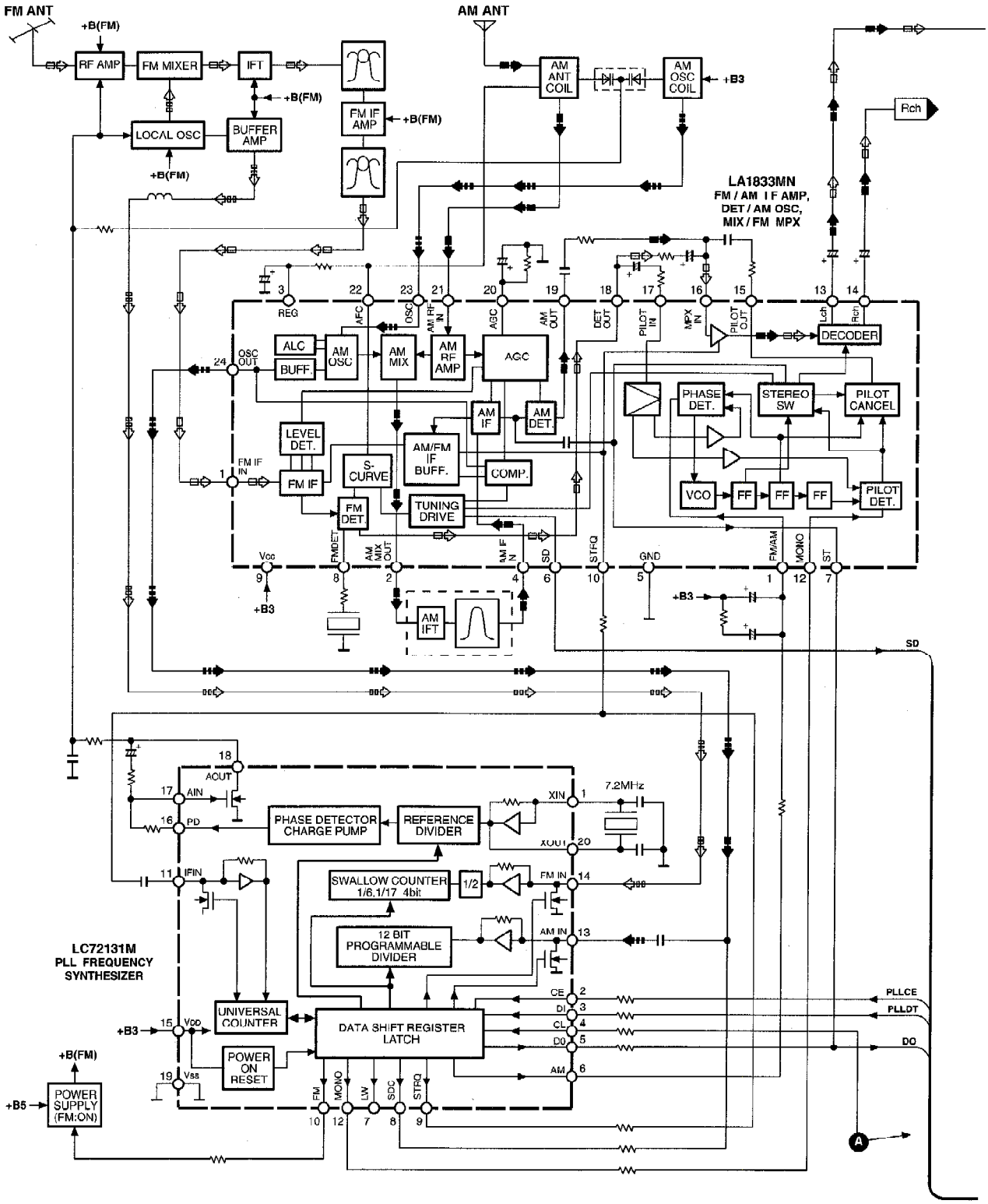
· CD CHANGER SECTION

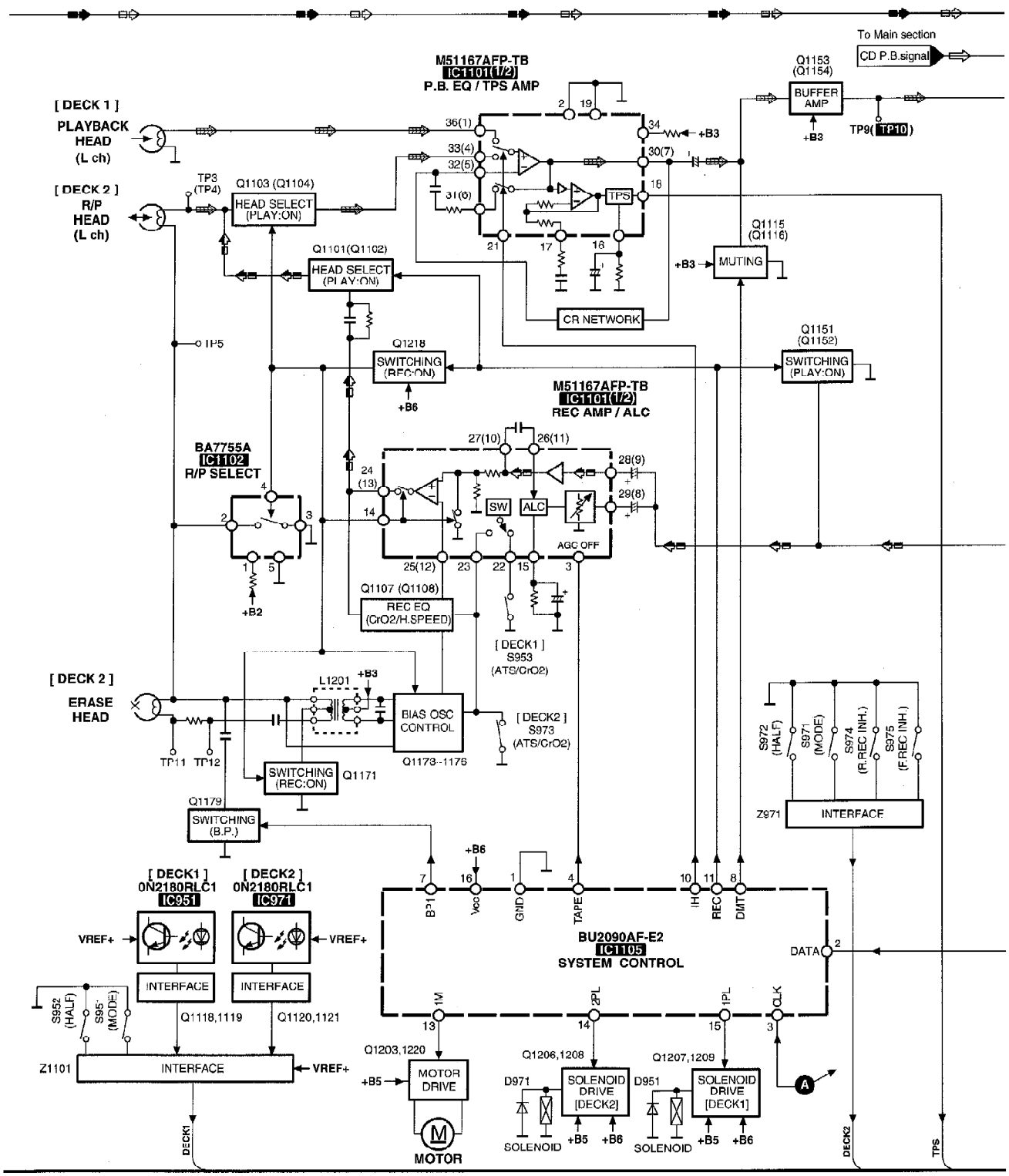


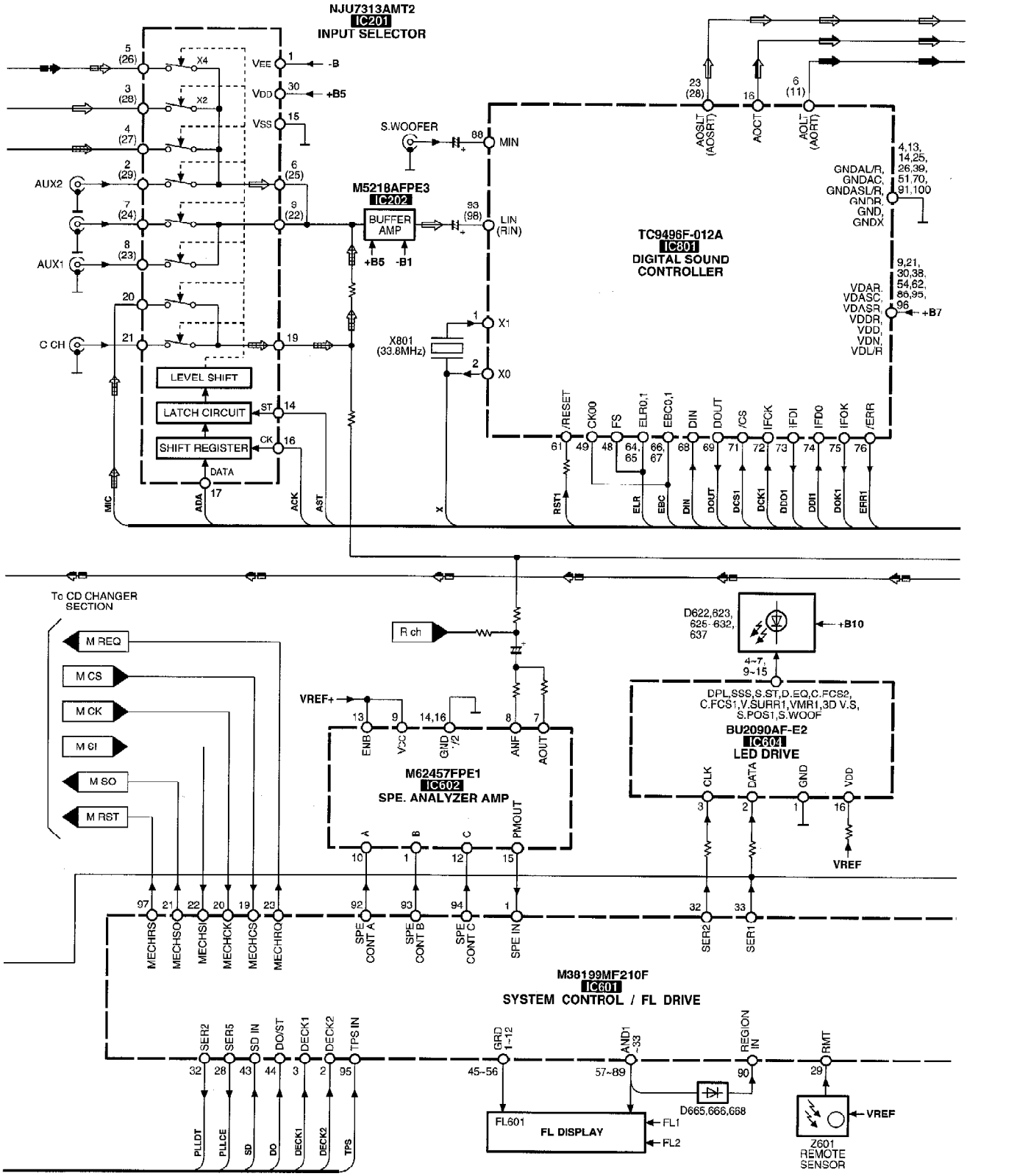

MN662790RSC
IC702
SERVO PROCESSOR / DIGITAL SIGNAL PROCESSOR
DIGITAL FILTER / D/A CONVERTER
+B2
IOSEL
CLVS
CRC
BLKCK
/CLDCK
SBCK
SUBC
DEMPH
SSEL
SQCK
SUBQ
PCK
PLLF
EFM
PLLF2
DSLF
DRF
RSEL
PSEL
MLD
MCLK
MDATA
IREF
STAT
MSEL
VCOF2
VCOF
BYTCK
RESY
PSEL
MSEL
SSEL
DVcod
AVcd2
Vhp
Vcc5V
/TEST
DVss
AVss
AVss2
Vss
AVcd1
CD-TEXT BUFFER
SUBCODE BUFFER
EFM DEMODULATION/ SYNC INTERPOLATION SUBCODE DEMODULATION
DSL / PLL VCO
DIGITAL DEEM/PHASIS
8 TIMES OVERSAMPLING/ DIGITAL FILTER
1 BIT DAC PWM LOGIC
PWM (R)
PWM (L)
OUTR
OUTL
R ch
FLAG
IPFLAG
TX
DIGITAL AUDIO INTERFACE
DIGITAL AUDIO INTERFACE
16k SRAM
CIRC ERROR CORRECTION/ DEINTERLEAVE
INTERPORATION/ SOFT MUTING/ DIGITAL ATTENUATION
ECM
ECS
PC
LRCK
SRDATA
BCLK
DMUTE
DSLF2
KICK
TRV
VREF
TVD
TRD
FOD
TBAL
FBAL
/TLOCK
/FLOCK
D/A CONVERTER
OUTPUT PORT
MICRO COMPUTER INTERFACE
SERVO CPU
VCO
TIMING GENERATOR PITCH CONTROL
A/D CONVERTER
INPUT PORT
SERVO TIMING GENERATOR
SMCK
FCLK
CSEL
X2 OUT
X1 IN
FE
TE
RFENV
TRCRS
VDET
BDO
/RFDET
OFT
SENSE
WVEL
LDON
/RST
X701
(16.9344MHz)

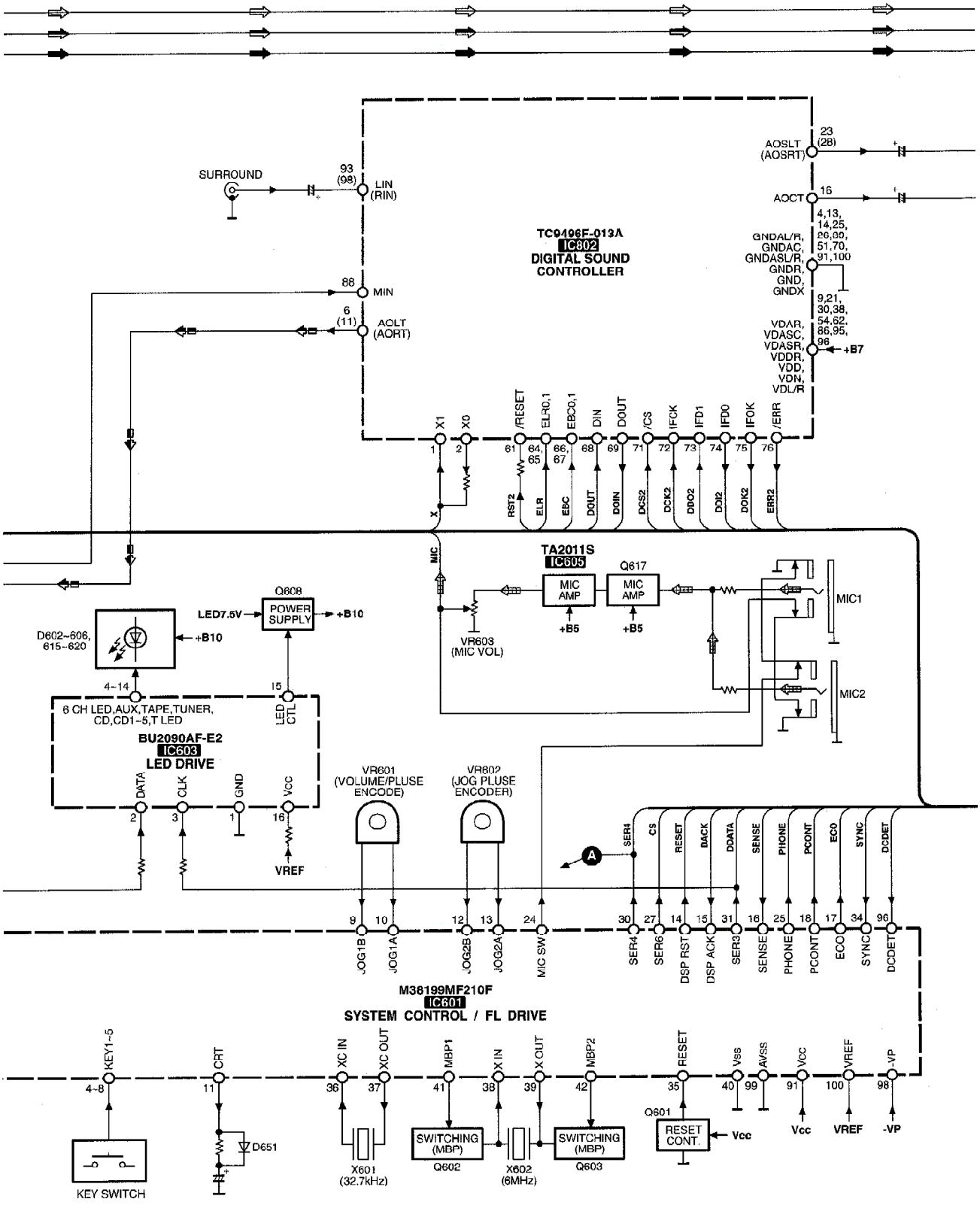

Note:
• ⇨ : CD SIGNAL LINE
CD P.B.signal
M REQ
M CS
M CK
M SI
M SO
M RST
To MAIN SECTION
+B2
SW5V
X451
(8MHz)
VREF
Vcc
3.3V MON
INT1
CNTR0
CLK
TXO
RXO
/RST
XIN
XOUT
M38503M4254F
IC451
SYSTEM CONTROL
/RST
MCLK
MDATA
MLD
P23
P11
P12
P10
INT2
INT3
INT0
CNTR1
XC1
Vss
CNVss
AVss
P03
P32
P01
P00
P34
P33
P07
P05
P04
P06
P02
SQCK
TC74HCT7007A
IC453
INTERFACE
S701
(REST)
S5
(BOTTOM)
S1
(TRAY POSITION 1 DET.)
S2
(TRAY POSITION 2 DET.)
S3
(OPEN DET.)
S4
(CLAMP)
Q451
452
+B6
PLUNGER DRIVE
PLUNGER
SW5V
SUBQ
BLKCK
STAT
Vcc
GND
TA7291P
IC1
MOTOR DRIVE
D2
Q1
MOTOR DRIVE
RM1
(LOADING MOTOR)
D1
(POSITION SENSOR)
+B6

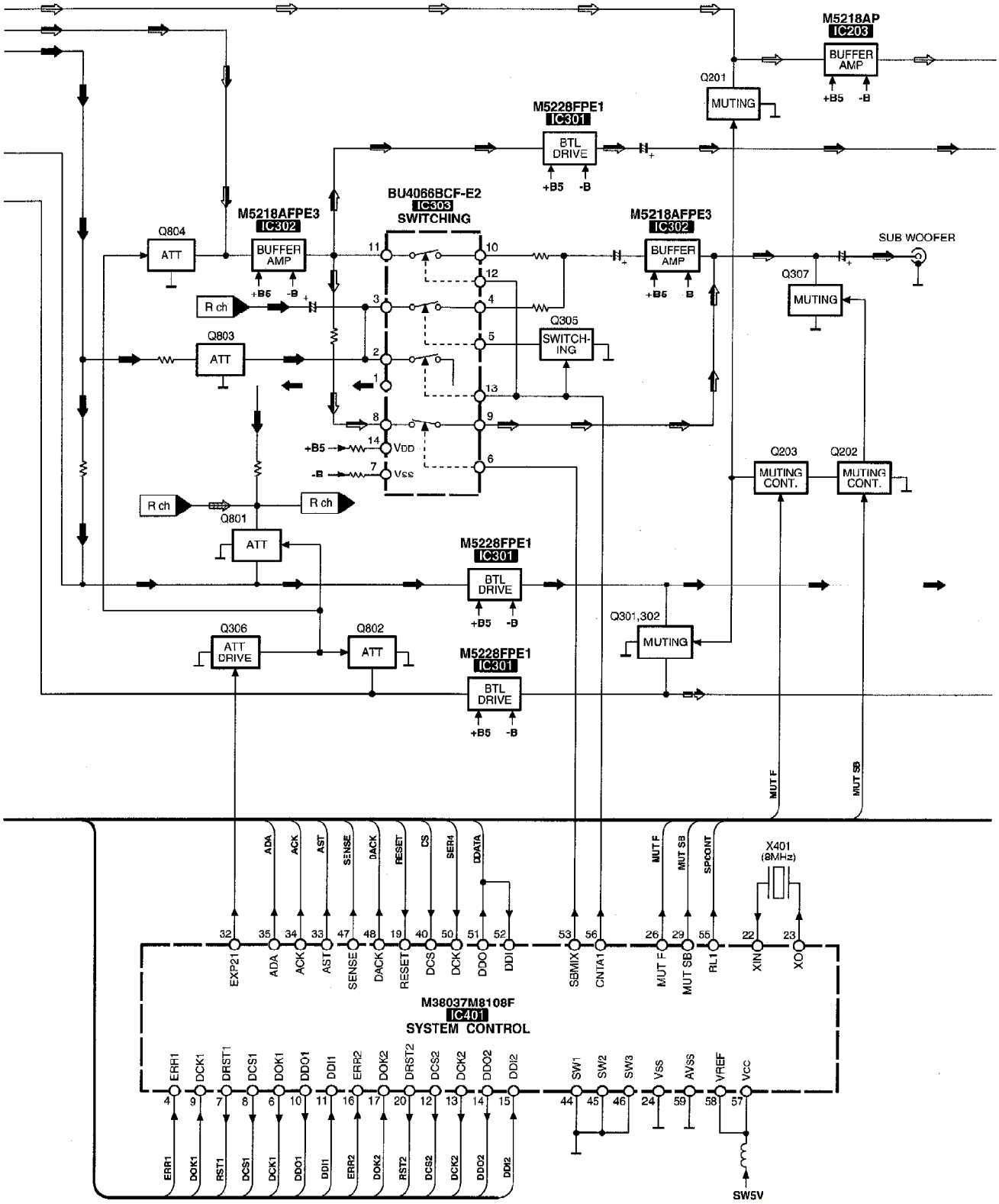
· MAIN SECTION

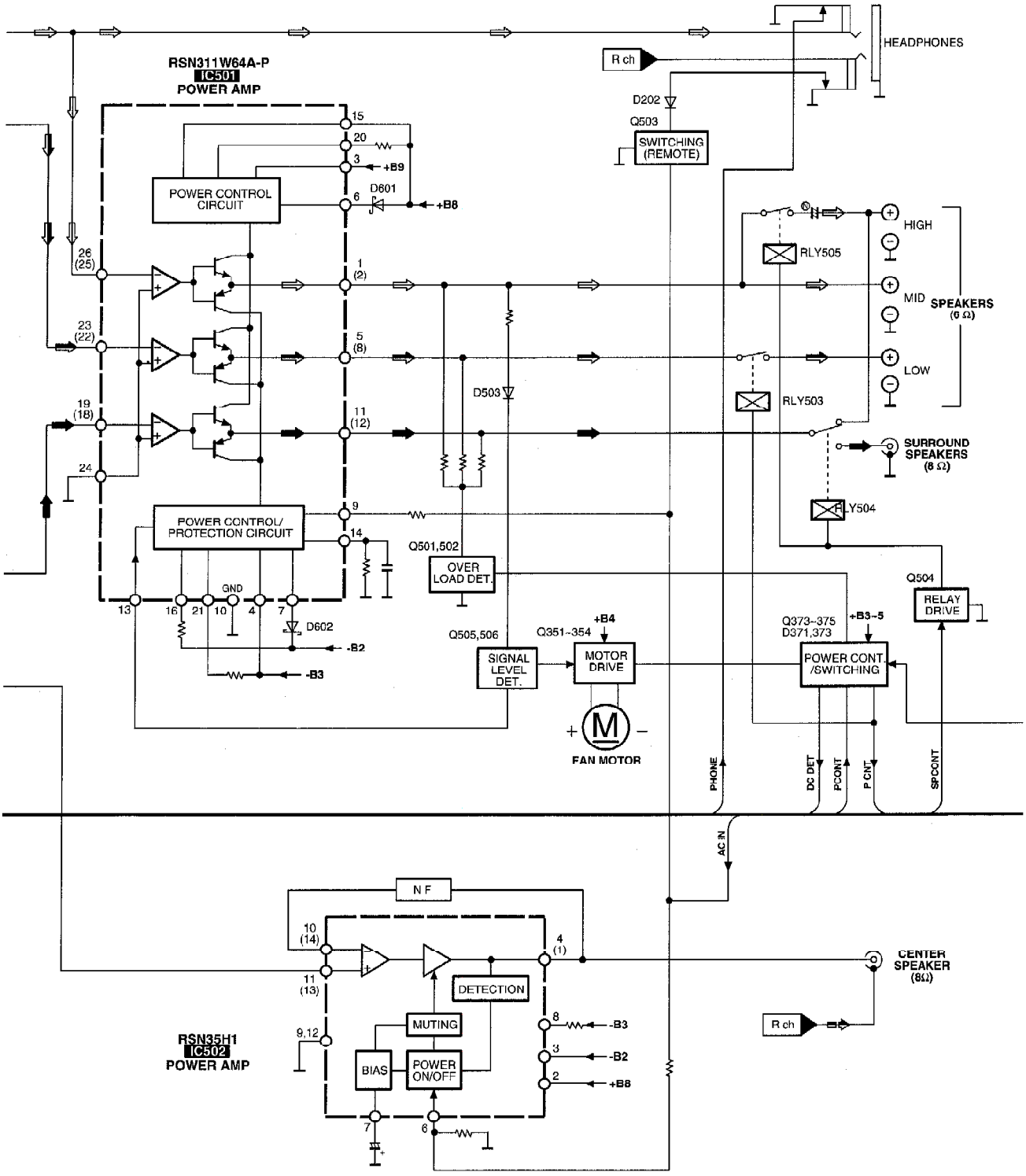


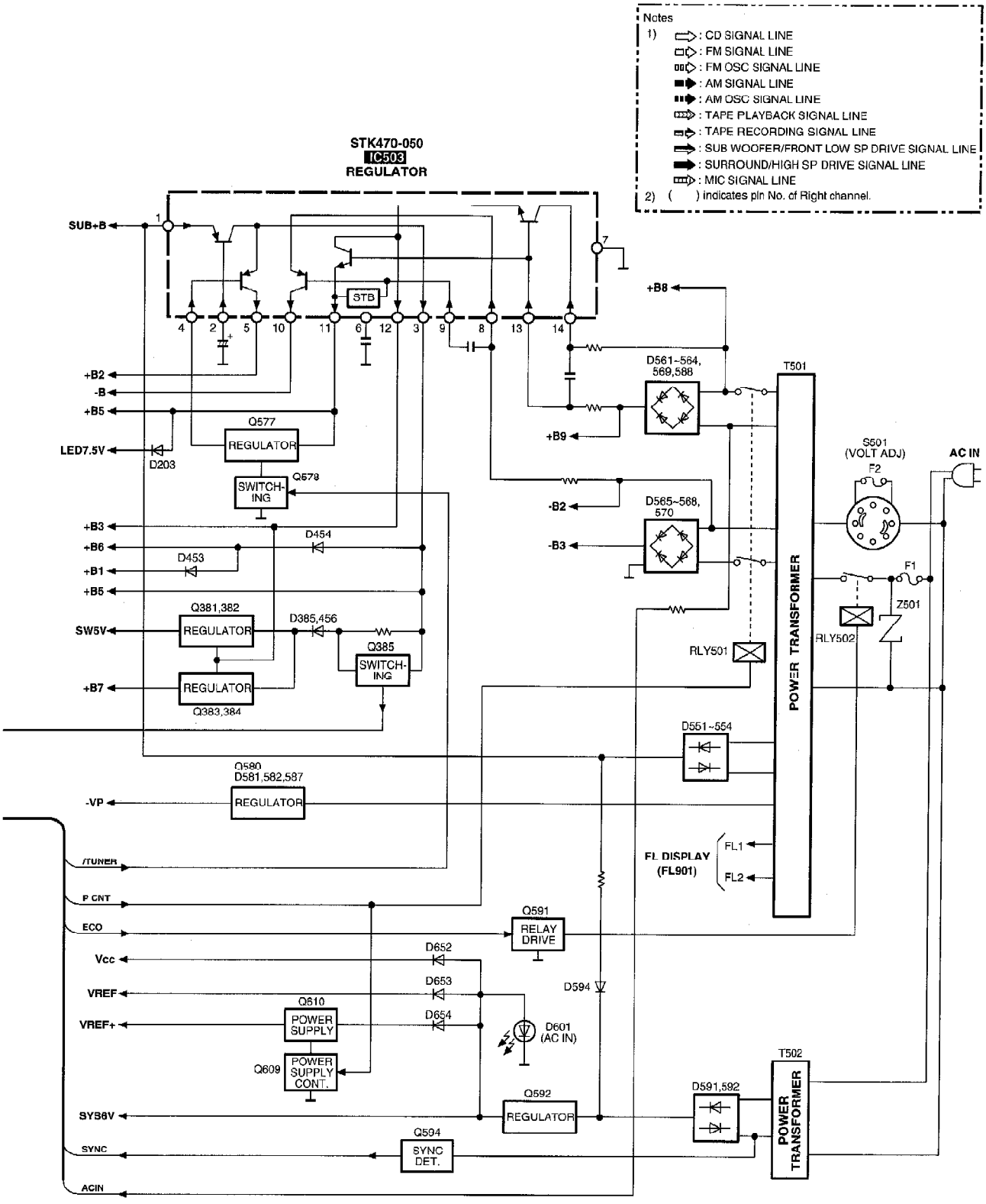

To Main section
CD P.B.signal
M51167AFP-TB
IC1101(1/2)
P.B. EQ / TPS AMP
Q1153
(Q1154)
BUFFER AMP
TP9(TP10)
[DECK 1]
PLAYBACK HEAD (L ch)
[DECK 2]
R/P HEAD (L ch)
TP3 (TP4)
Q1103 (Q1104)
HEAD SELECT (PLAY:ON)
Q1101(Q1102)
HEAD SELECT (PLAY:ON)
TPS
Q1115
(Q1116)
MUTING
CR NETWORK
TP5
Q1218
SWITCHING (REC:ON)
Q1151
(Q1152)
SWITCHING (PLAY:ON)
+B6
M51167AFP-TB
IC1101(1/2)
REC AMP / ALC
BA7755A
IC1102
R/P SELECT
SW
ALC
AGC OFF
Q1107 (Q1108)
REC EQ (CrO2/H.SPEED)
[DECK1]
S953
(ATS/CrO2)
[DECK 2]
ERASE HEAD
L1201
BIAS OSC CONTROL
Q1173~1176
[DECK2]
S973
(ATS/CrO2)
TP11 TP12
SWITCHING (REC:ON) Q1171
Q1179
SWITCHING (B.P.)
S972 (HALF)
S971 (MODE)
S974 (R.REC INH.)
S975 (F.REC INH.)
Z971
INTERFACE
[DECK1]
0N2180RLC1
IC951
[DECK2]
0N2180RLC1
IC971
VREF+
INTERFACE
Q1118,1119
Q1120,1121
S952 (HALF)
S95· (MODE)
Z1101
BU2090AF-E2
IC1105
SYSTEM CONTROL
DATA
Q1203,1220
MOTOR DRIVE
MOTOR
Q1206,1208
SOLENOID DRIVE [DECK2]
Q1207,1209
SOLENOID DRIVE [DECK1]
D971
D951
SOLENOID
DECK1
DECK2
TPS


NJU7313AMT2
IC201
INPUT SELECTOR
AUX2
AUX1
C CH
LEVEL SHIFT
LATCH CIRCUIT
SHIFT REGISTER
DATA
M5218AFPE3
IC202
BUFFER AMP
+B5
-B1
S.WOOFER
MIN
LIN (RIN)
X801 (33.8MHz)
X1
X0
TC9496F-012A
IC801
DIGITAL SOUND CONTROLLER
GNDAL/R, GNDAC, GNDASL/R, GNDR, GND, GNDX
VDAR, VDASC, VDASR, VDDR, VDD, VDN, VDL/R
+B7
/RESET
CKO0
FS
ELR0,1
EBC0,1
DIN
DOUT
/CS
IFCK
IFDI
IFD0
IFOK
/ERR
RST1
ELR
EBC
DIN
DOUT
DCS1
DCK1
DDI1
DDI1
DOK1
ERR1
To CD CHANGER SECTION
M REQ
M CS
M CK
M SI
M SO
M RST
R ch
VREF+
M62457FPE1
IC602
SPE. ANALYZER AMP
ENB
VCC
GND /2
ANF
AOUT
PMOUT
D622,623, 625~632, 637
+B10
DPL,SSS,S.ST,D.EQ,C.FCS2, C.FCS1,V.SURR1,VMR1,3D V.S, S.POS1,S.WOOF
BU2090AF-E2
IC604
LED DRIVE
CLK
DATA
GND
VDD
VREF
MECHRS
MECHSO
MECHSI
MECHCK
MECHCS
MECHRQ
SPE CONT A
SPE CONT B
SPE CONT C
SPE IN
SER2
SER1
M38199MF210F
IC601
SYSTEM CONTROL / FL DRIVE
SER2
SER5
SD IN
DO/ST
DECK1
DECK2
TPS IN
PLLDT
PLLCE
SD
DO
DECK1
DECK2
TPS
GRD 1~12
ANO1 ~33
REGION IN
RMT
FL601
FL DISPLAY
FL1
FL2
D665,666,668
Z601
REMOTE SENSOR


SURROUND
93 (98) LIN (RIN)
88 MIN
6 (11) AOLT (AORT)
AOSLT (AOSRT) 23 (28)
AOCT 16
GNDAL/R, GNDAC, GNDASL/R, GNDR, GND, GNDX 4,13, 14,25, 26,39, 51,70, 91,100
VDAR, VDASC, VDASR, VDDR, VDD, VDN, VDL/R 9,21, 30,38, 54,62, 86,95, 96 +B7
TC9496F-013A
IC602
DIGITAL SOUND CONTROLLER
X1 X0 /RESET ELR0,1 EBC0,1 DIN DOUT /CS IFCK IFD1 IFD0 IFOK /ERR
1 2 61 64, 65 66, 67 68 69 71 72 73 74 75 76
RST2 ELR EBC DOUT DOIN DCS2 DCK2 DDO2 DDI2 DOK2 ERR2
TA2011S
IC605
Q617
MIC AMP
MIC AMP
+B5
+B5
MIC1
MIC2
VR603 (MIC VOL)
Q608
LED7.5V
POWER SUPPLY
+B10
+B10
D602~606, 615~620
4~14
15
6 CH LED,AUX,TAPE,TUNER, CD,CD1~5,T LED
LED CTL
BU2090AF-E2
IC603
LED DRIVE
DATA CLK GND Vcc
2 3 1 16
VREF
VR601 (VOLUME/PLUSE ENCODE)
VR602 (JOG PLUSE ENCODER)
SER4 CS RESET DACK DDATA SENSE PHONE PCONT ECO SYNC DCDET
A
9 10 12 13 24 30 27 14 15 31 16 25 18 17 34 96
JOG1B JOG1A JOG2B JOG2A MIC SW SER4 SER6 DSP RST DSP ACK SER3 SENSE PHONE PCONT ECO SYNC DCDET
M38199MF210F
IC601
SYSTEM CONTROL / FL DRIVE
KEY1~5 CRT XC IN XC OUT MBP1 X IN X OUT MBP2 RESET Vss AVss Vcc VREF -VP
4~8 11 36 37 41 38 39 42 35 40 99 91 100 98
KEY SWITCH
D651
X601 (32.7kHz)
SWITCHING (MBP) Q602
X602 (6MHz)
SWITCHING (MBP) Q603
Q601
RESET CONT.
Vcc
Vcc VREF -VP


M5218AP
IC203
BUFFER AMP
+B5 -B
Q201
MUTING
M5228FPE1
IC301
BTL DRIVE
+B5 -B
BU4066BCF-E2
IC303
SWITCHING
M5218AFPE3
IC302
Q804
ATT
BUFFER AMP
+B5 -B
R ch
Q803
ATT
Q805
SWITCH-ING
M5218AFPE3
IC302
BUFFER AMP
+B5 -B
SUB WOOFER
Q307
MUTING
+B5
Vdd
-B
Vss
Q203
MUTING CONT.
Q202
MUTING CONT.
R ch
R ch
Q801
ATT
M5228FPE1
IC301
BTL DRIVE
+B5 -B
Q306
ATT DRIVE
Q802
ATT
Q301,302
MUTING
M5228FPE1
IC301
BTL DRIVE
+B5 -B
MUT F
MUT SB
ADA
ACK
AST
SENSE
DACK
RESET
CS
SER4
DDATA
SPCONT
X401
(8MHz)
EXP21
SBMIX
CNTA1
RL1
XIN
XO
M38037M8108F
IC401
SYSTEM CONTROL
ERR1
DCK1
DRST1
DCS1
DOK1
DDO1
DDI1
ERR2
DOK2
DRST2
DCS2
DCK2
DDO2
DDI2
SW1
SW2
SW3
Vss
AVss
VREF
Vcc
SW5V


RSN311W64A-P
IC501
POWER AMP
POWER CONTROL CIRCUIT
+B9
D601
+B8
POWER CONTROL/ PROTECTION CIRCUIT
GND
D602
-B2
-B3
OVER LOAD DET.
Q501,502
SIGNAL LEVEL DET.
Q505,506
MOTOR DRIVE
Q351~354
+B4
FAN MOTOR
D503
D202
Q503
SWITCHING (REMOTE)
R ch
HEADPHONES
RLY505
RLY503
RLY504
HIGH
MID
LOW
SPEAKERS (6 Ω)
SURROUND SPEAKERS (8 Ω)
Q504
RELAY DRIVE
Q373~375
D371,373
+B3~5
POWER CONT /SWITCHING
PHONE
DC DET
PCONT
P CNT
SPCONT
AC IN
N F
DETECTION
MUTING
BIAS
POWER ON/OFF
RSN35H1
IC502
POWER AMP
CENTER SPEAKER (8Ω)
R ch


Notes
1) : CD SIGNAL LINE
: FM SIGNAL LINE
: FM OSC SIGNAL LINE
: AM SIGNAL LINE
: AM OSC SIGNAL LINE
: TAPE PLAYBACK SIGNAL LINE
: TAPE RECORDING SIGNAL LINE
: SUB WOOFER/FRONT LOW SP DRIVE SIGNAL LINE
: SURROUND/HIGH SP DRIVE SIGNAL LINE
: MIC SIGNAL LINE
2) ( ) indicates pin No. of Right channel.
STK470-050
IC503
REGULATOR
SUB+B
STB
+B8
+B2
-B
+B5
LED7.5V
D203
Q577
REGULATOR
SWITCH-ING
Q578
+B9
D561~564, 569,588
T501
S501 (VOLT ADJ)
F2
AC IN
-B2
-B3
D565~568, 570
+B3
+B6
+B1
+B5
D454
D453
Q381,382
REGULATOR
D385,456
SW5V
Q385
SWITCH-ING
+B7
REGULATOR
Q383,384
RLY501
F1
Z501
RLY502
POWER TRANSFORMER
D551~554
Q580
D581,582,587
REGULATOR
-VP
/TUNER
P CNT
ECO
Vcc
VREF
VREF+
Q591
RELAY DRIVE
D652
D653
D654
Q610
POWER SUPPLY
Q609
POWER SUPPLY CONT.
D594
D601 (AC IN)
FL DISPLAY (FL901)
FL1
FL2
T502
D591,592
Q592
REGULATOR
SYS6V
Q594
SYNC DET.
SYNC
ACIN

14 Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology)

Note :

S501	Voltage adjust switch
S601	Power switch
S602	Economi mode switch
S603	CD select switch
S604	Tuner select switch
S605	Tape select switch
S606	AUX select switch
S607	6CH discrete input select switch
S608	Play/Rec timer switch
S609	Clock /Timer switch
S611	Random switch
S612	3D AI EQ shift right switch
S613	Display/Demo switch
S614	S. Woofer switch
S615	3D AI EQ select switch
S616	Karaoke effect switch
S617	Karaoke switch
S618	3D AI EQ shift left switch
S619	3D AI EQ shift up switch
S620	3D AI EQ shift down switch
S621	CD manager select switch
S622	Disc 1 select switch
S623	Disc 1 eject switch
S624	Disc 2 select switch
S625	Disc 2 eject switch
S626	Disc 3 select switch
S627	Disc 3 eject switch
S628	Disc 4 select switch
S629	Disc 4 eject switch
S630	Disc 5 select switch
S631	Disc 5 eject switch
S640	FF/Skip switch
S641	Pause/Play switch
S642	Stop switch
S643	Rev play switch
S644	Rew/Skip switch
S645	Low ch control switch
S646	Mid ch control switch
S647	High ch control switch
S648	Tri-Amp control select switch
S649	Set AV effect switch
S651	Deck 2 open switch
S652	Rev mode select switch
S653	Rec/Stop select switch
S655	Tape edit switch
S656	Deck 1 open
S701	Reset switch
S951	Deck 1 mode detect switch
S952	Deck 1 tape detect switch
S953	Deck 1 CrO2 detect switch
S971	Deck 2 mode detect switch
S972	Deck 2 tape detect switch
S973	Deck 2 CrO2 detect switch
S974	Deck 2 record detect switch
S975	Deck 2 record detect switch
SW1	Tray position switch
SW2	Tray position switch
SW3	Tray open switch
SW4	CD offset detect switch
SW5	Spindle bottom position detect switch

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark	: Playback
<< >>	: Rec
(( ))	: CD
< >	: FM
( )	: AM

- **Importance safety notice :**

  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

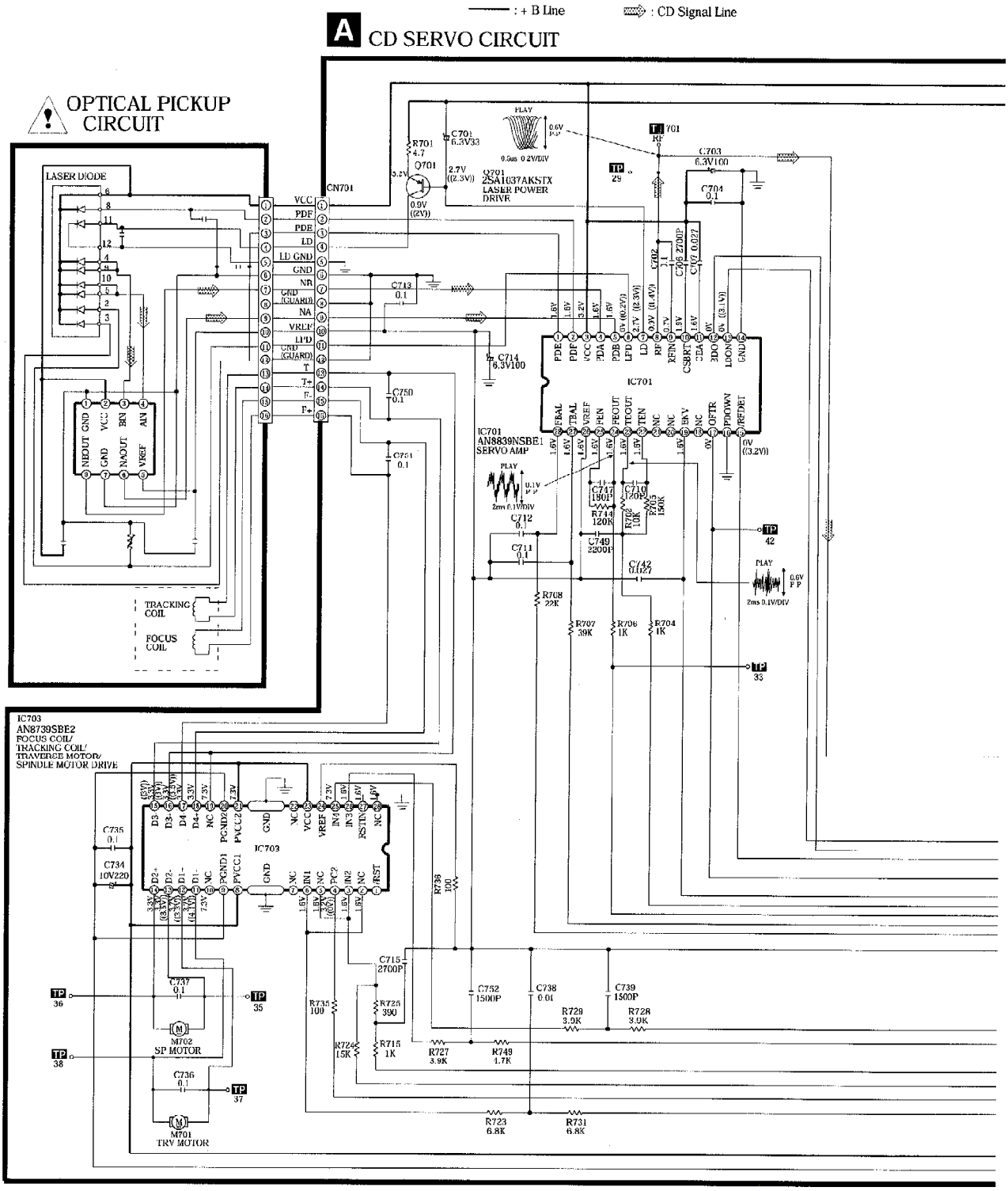
Caution !

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

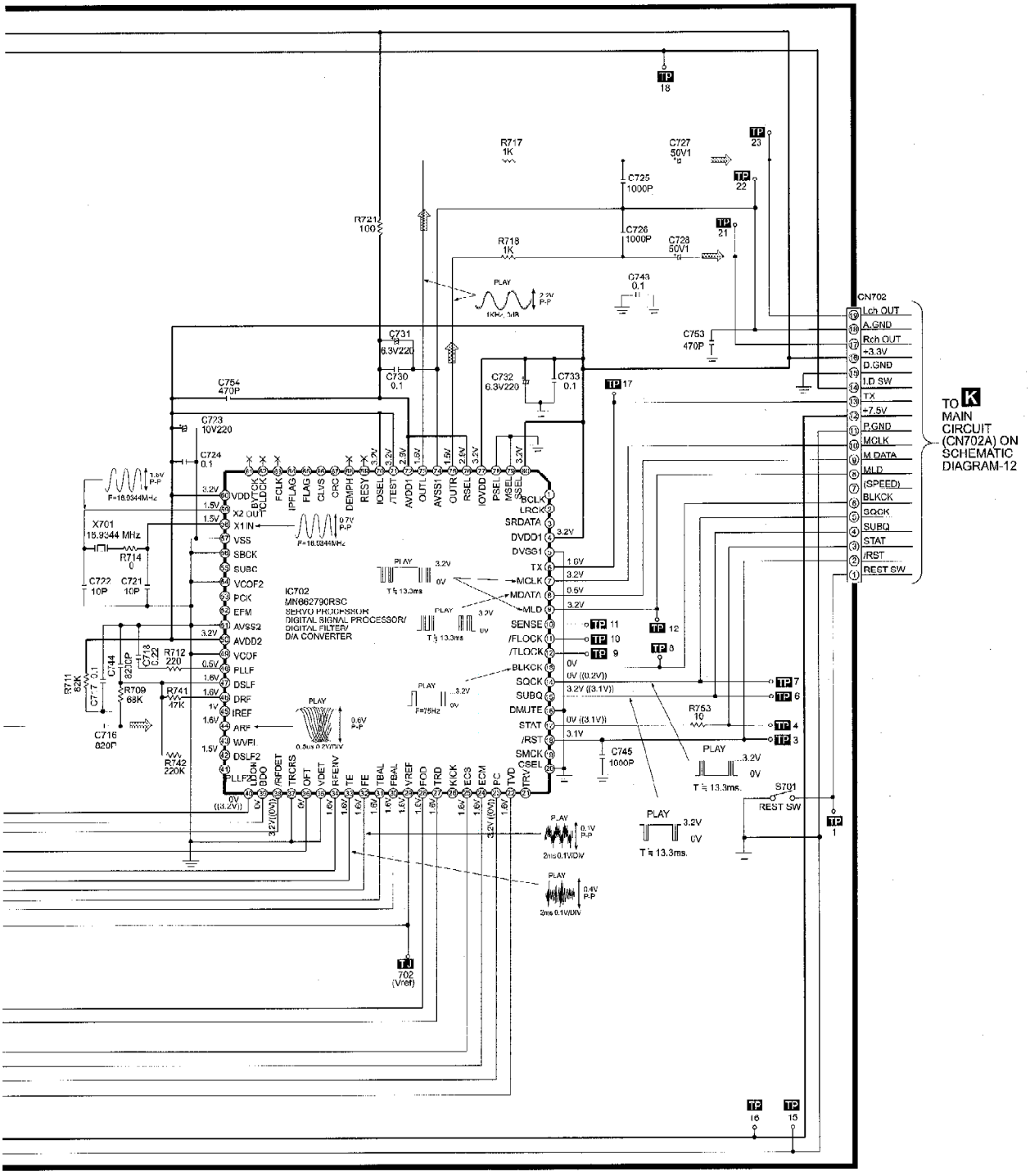
- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

SCHEMATIC DIAGRAM-1



SCHEMATIC DIAGRAM-2

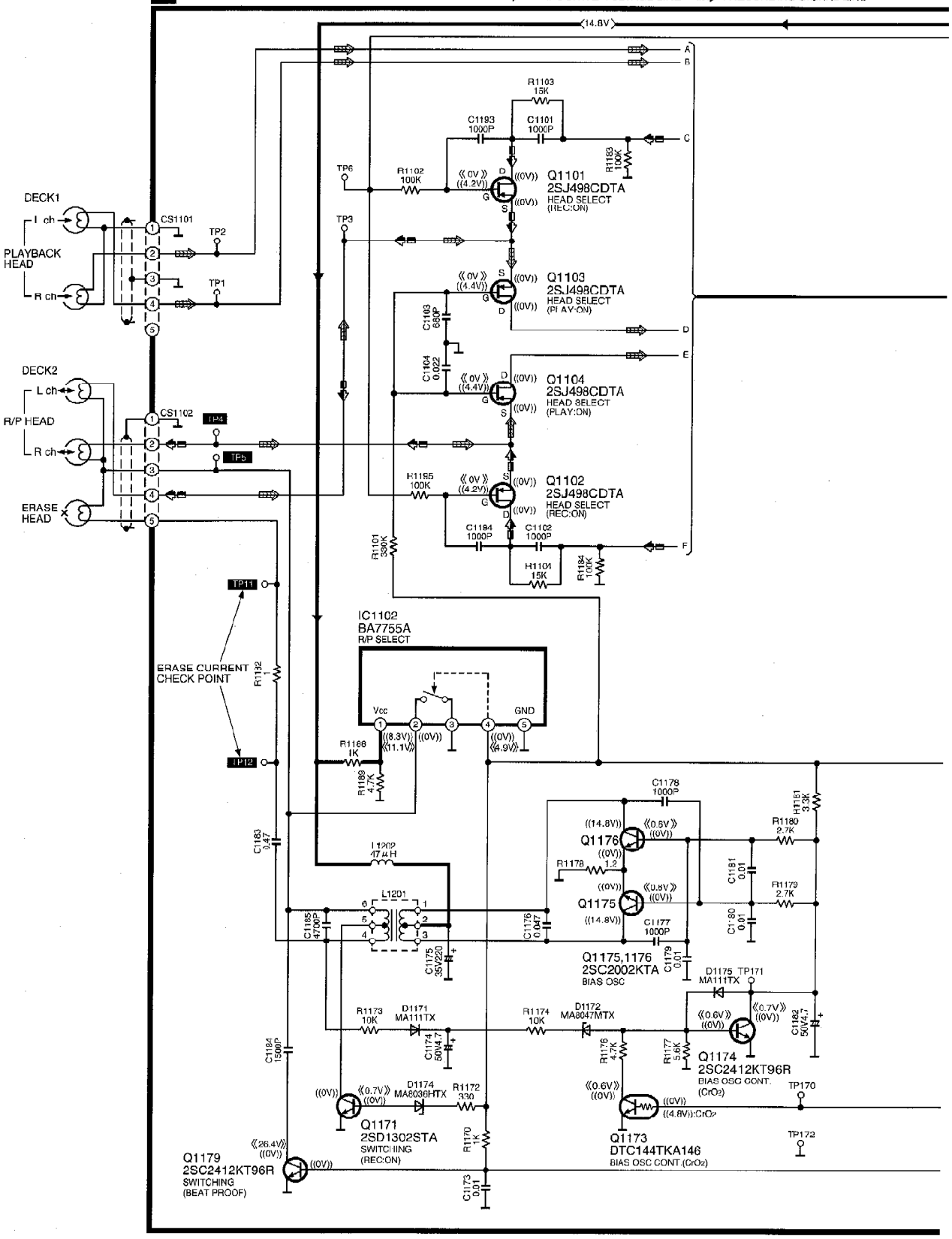
——— : + B Line ⇨ : CD Signal Line



SCHEMATIC DIAGRAM-3

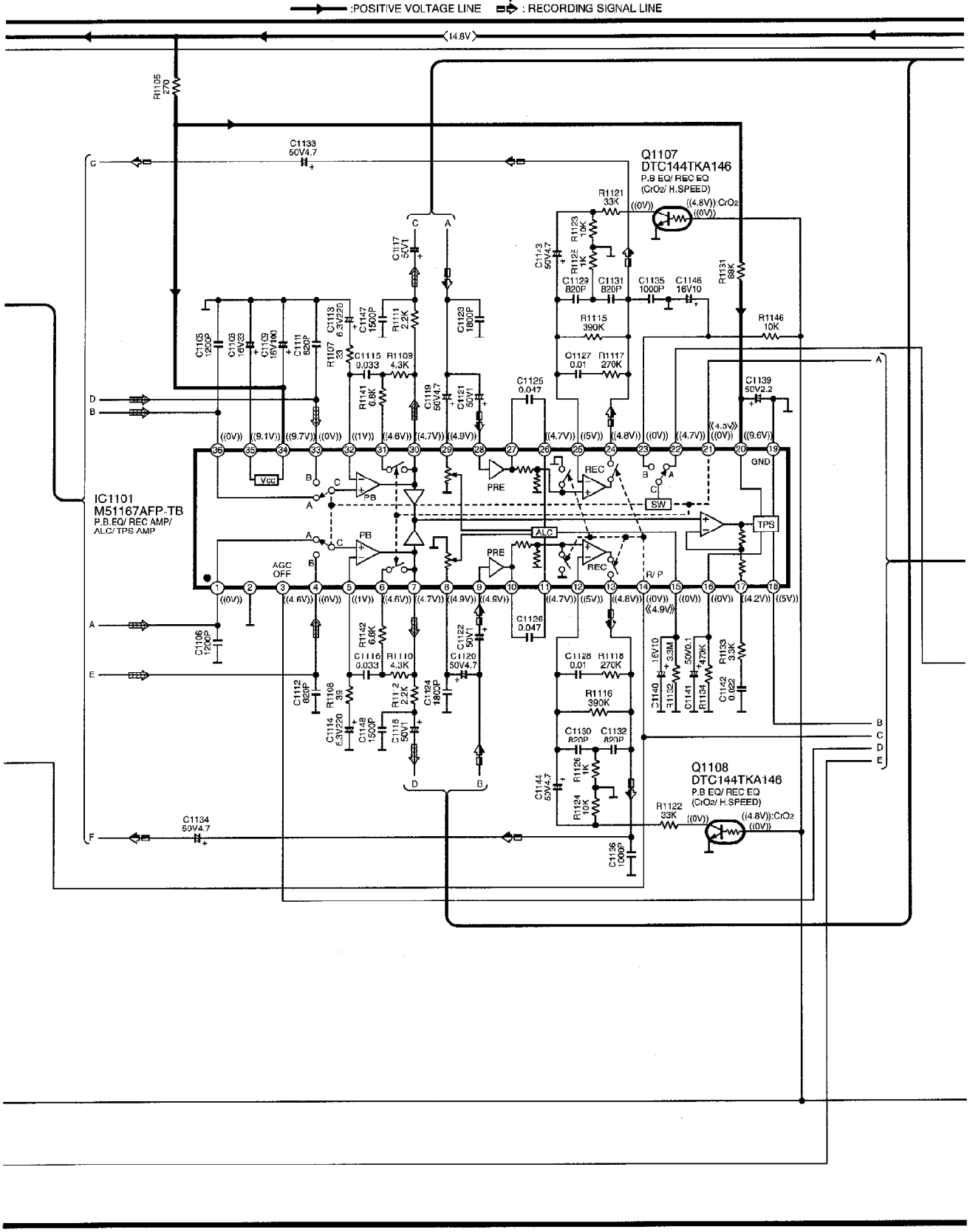
B DECK CIRCUIT

:NEGATIVE VOLTAGE LINE :TAPE PLAYBACK SIGNAL LINE
:POSITIVE VOLTAGE LINE : RECORDING SIGNAL LINE



SCHEMATIC DIAGRAM-4

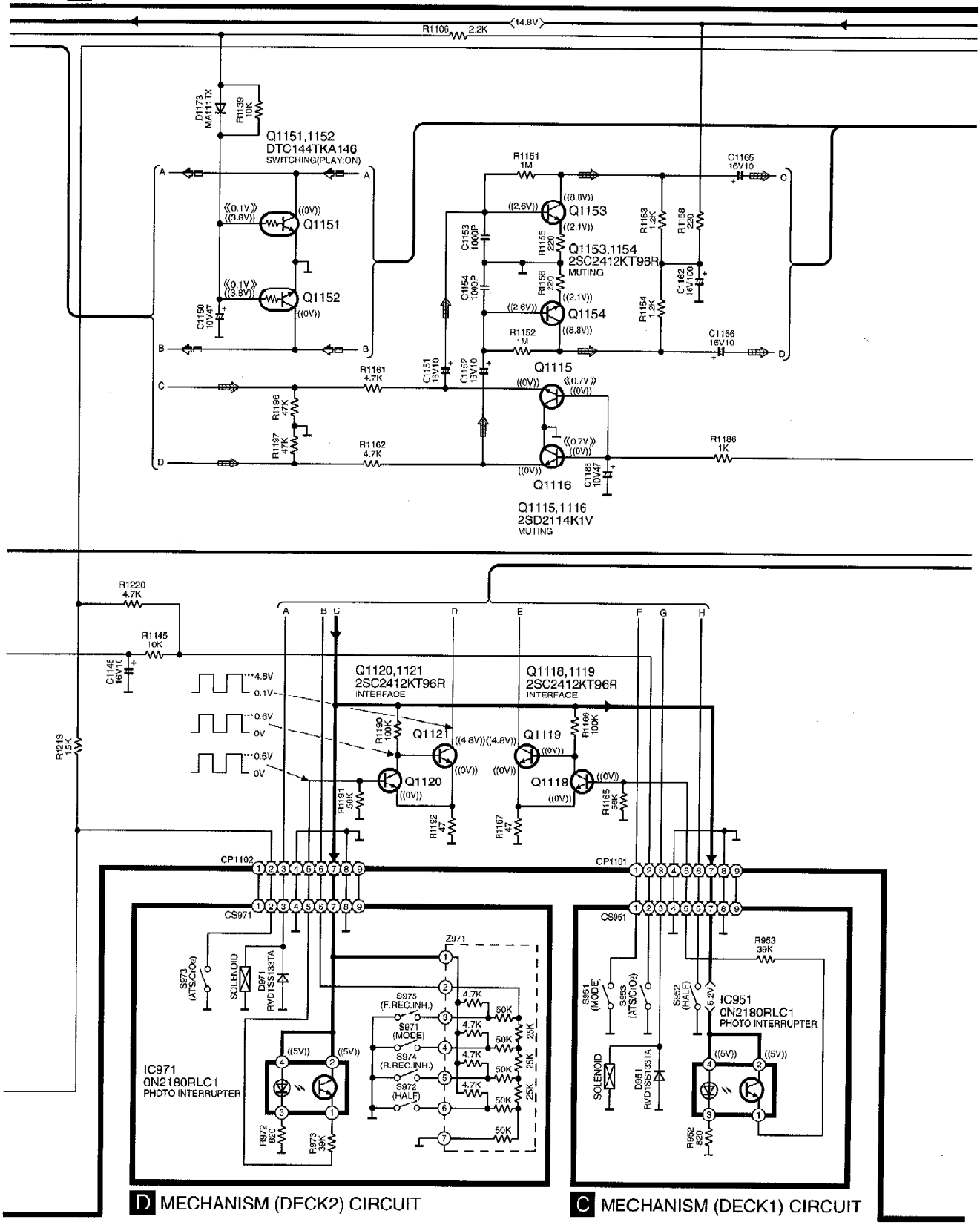
:NEGATIVE VOLTAGE LINE
:POSITIVE VOLTAGE LINE
:TAPE PLAYBACK SIGNAL LINE
: RECORDING SIGNAL LINE



SCHEMATIC DIAGRAM-5

B DECK CIRCUIT

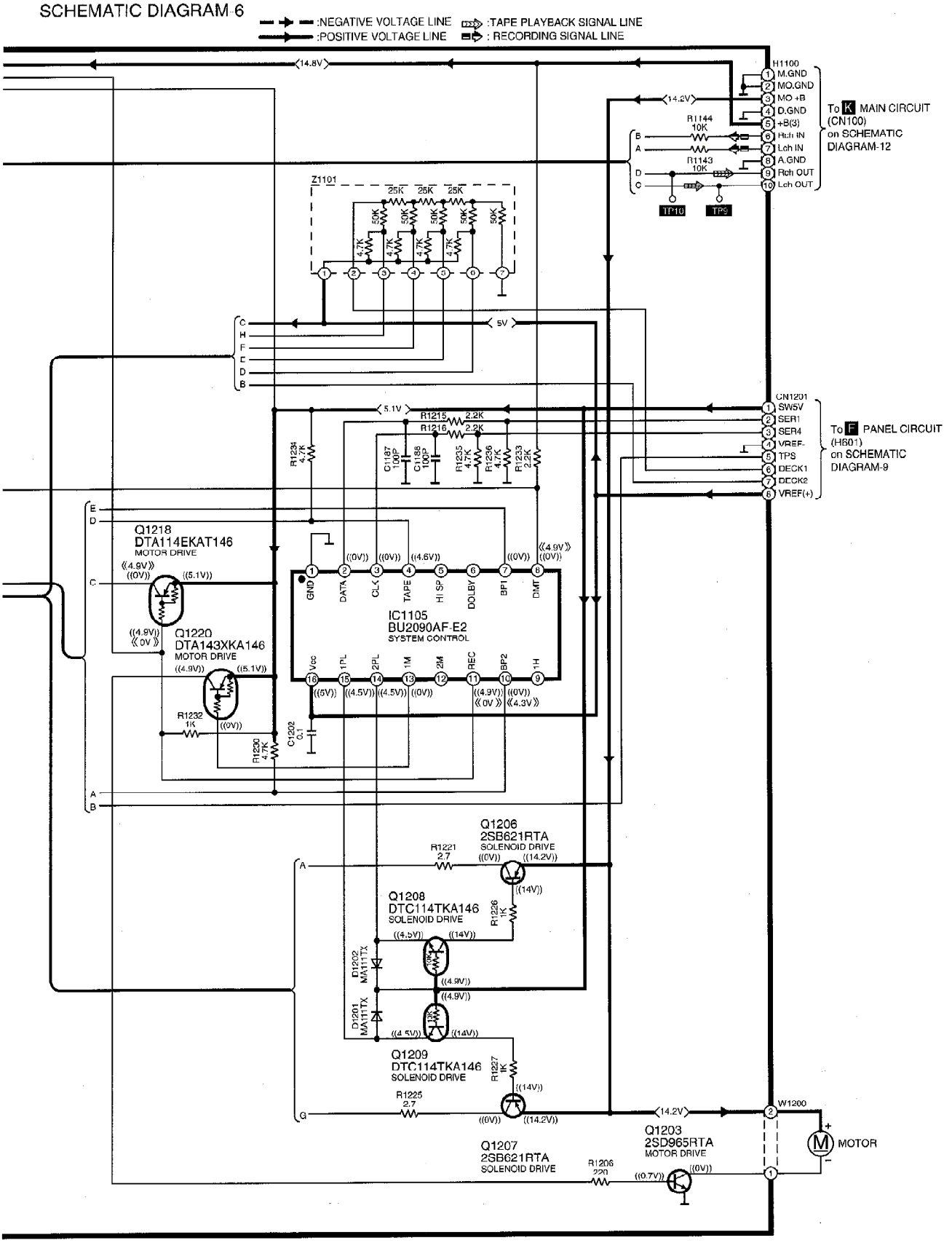
:NEGATIVE VOLTAGE LINE :TAPE PLAYBACK SIGNAL LINE
:POSITIVE VOLTAGE LINE : RECORDING SIGNAL LINE



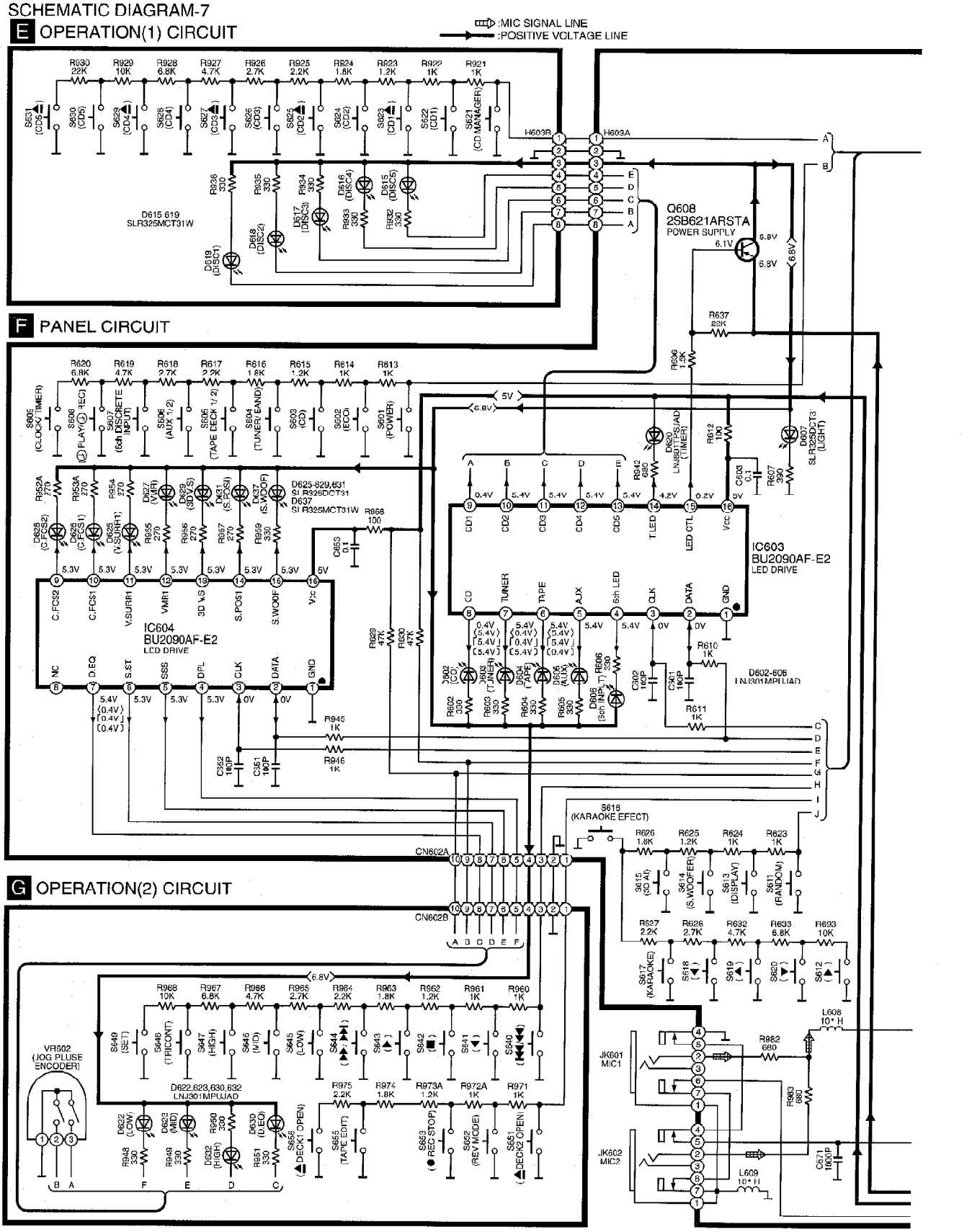
D MECHANISM (DECK2) CIRCUIT

C MECHANISM (DECK1) CIRCUIT

SCHEMATIC DIAGRAM-6



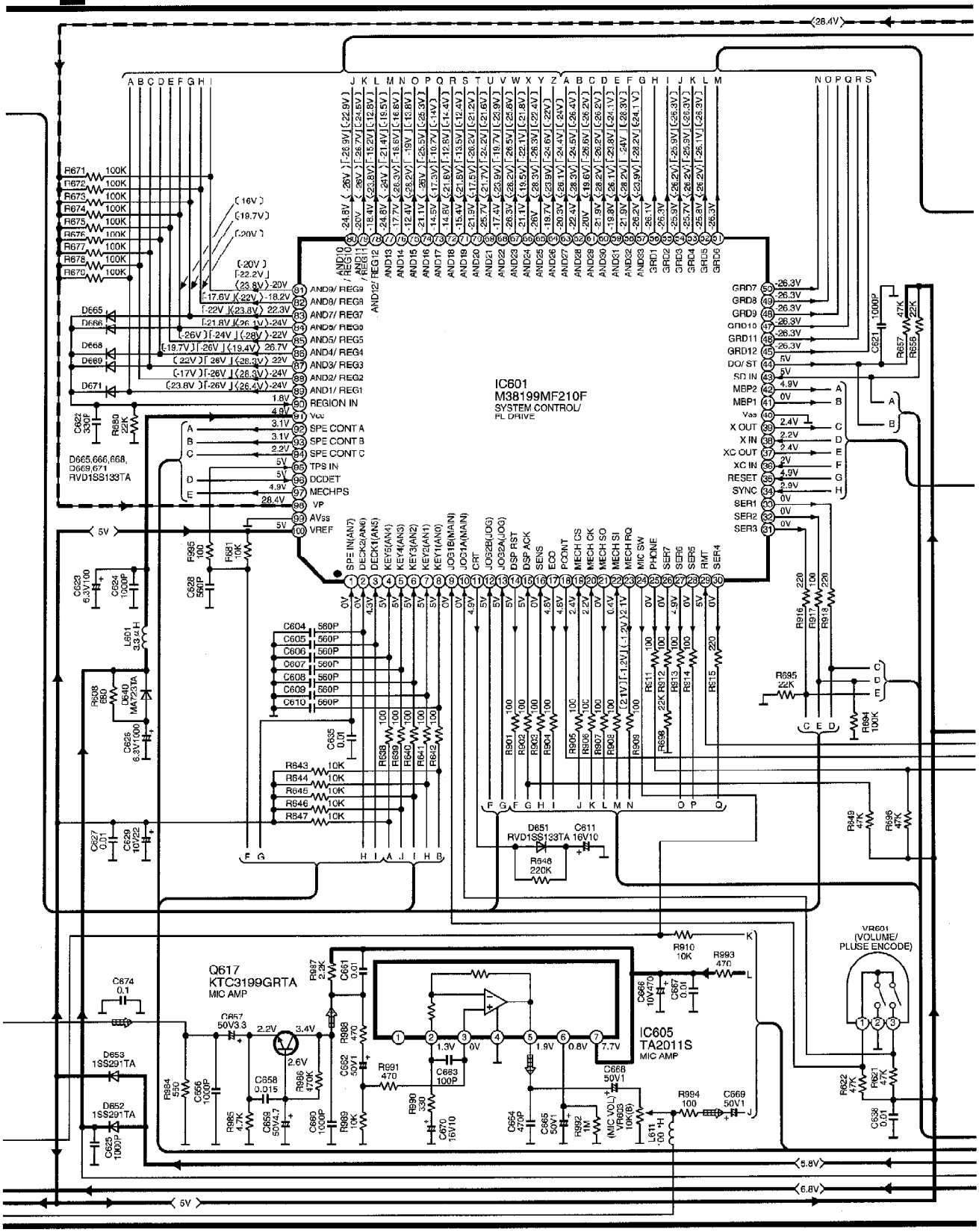
SCHEMATIC DIAGRAM-7



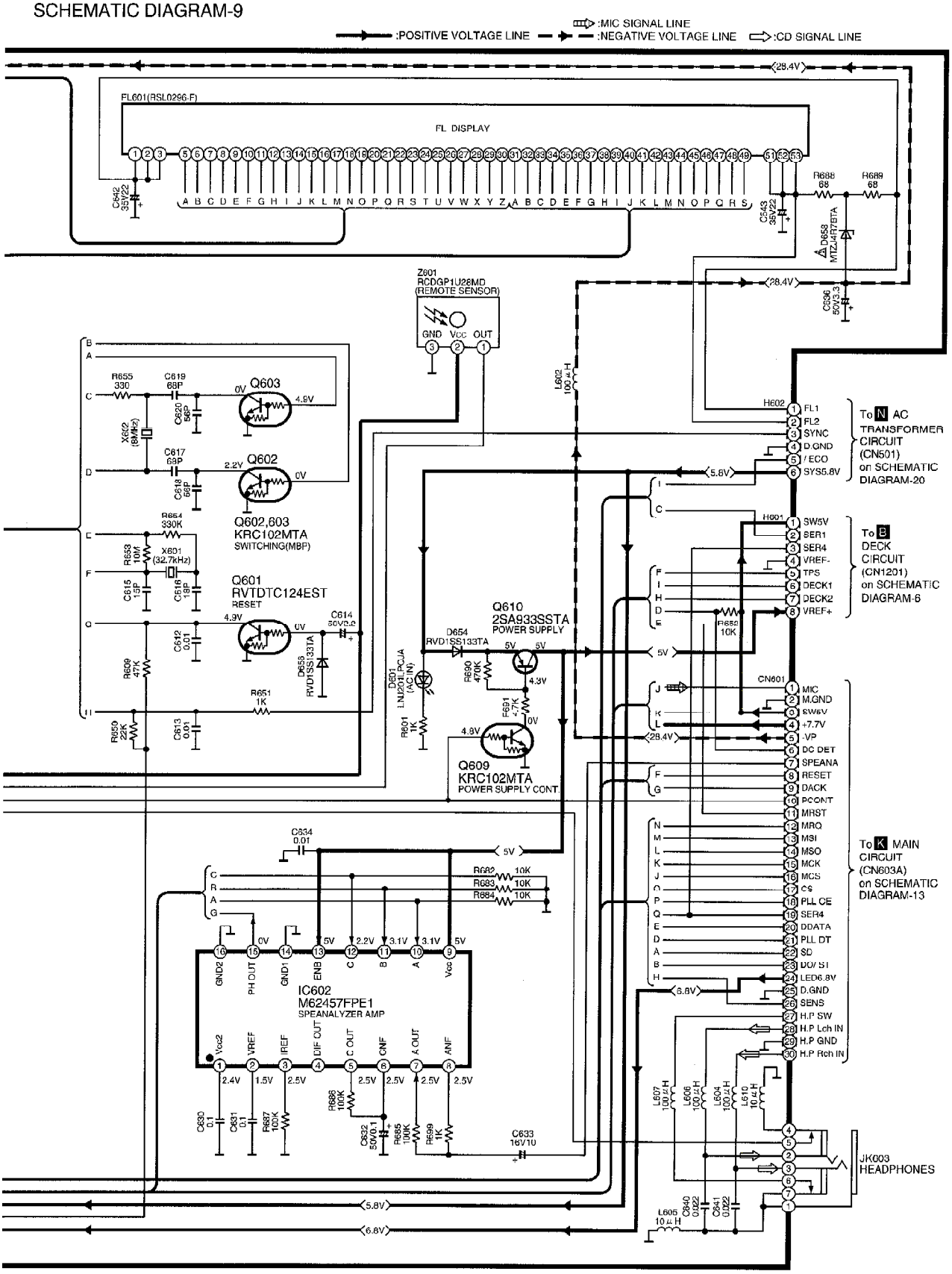
SCHEMATIC DIAGRAM-8

F PANEL CIRCUIT

:POSITIVE VOLTAGE LINE :MIC SIGNAL LINE :NEGATIVE VOLTAGE LINE

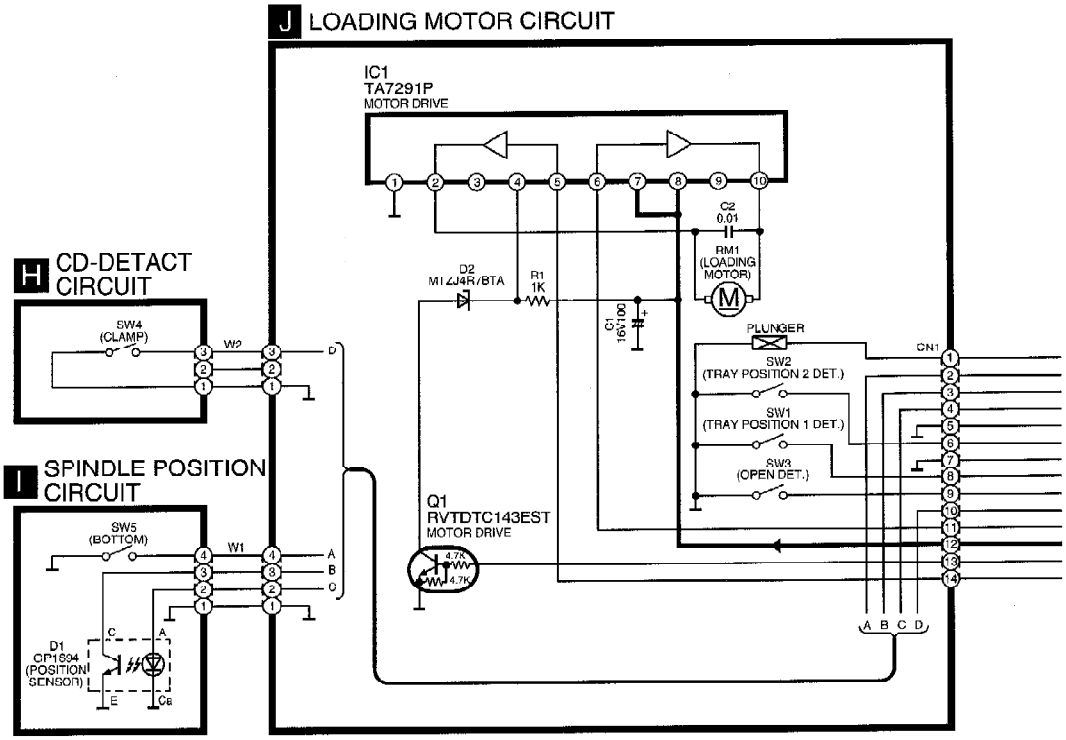


SCHEMATIC DIAGRAM-9



SCHEMATIC DIAGRAM-10

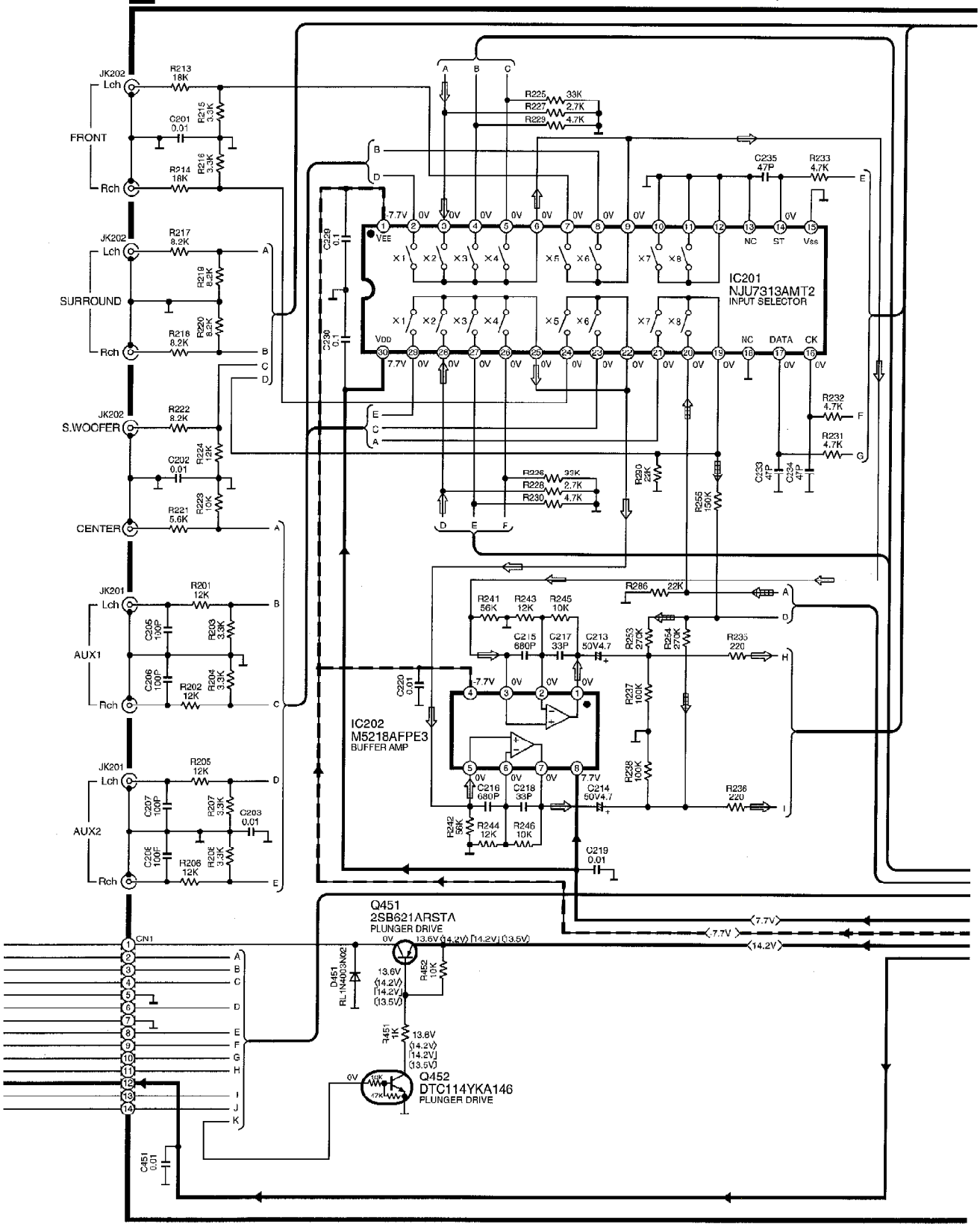
:POSITIVE VOLTAGE LINE



SCHEMATIC DIAGRAM-11

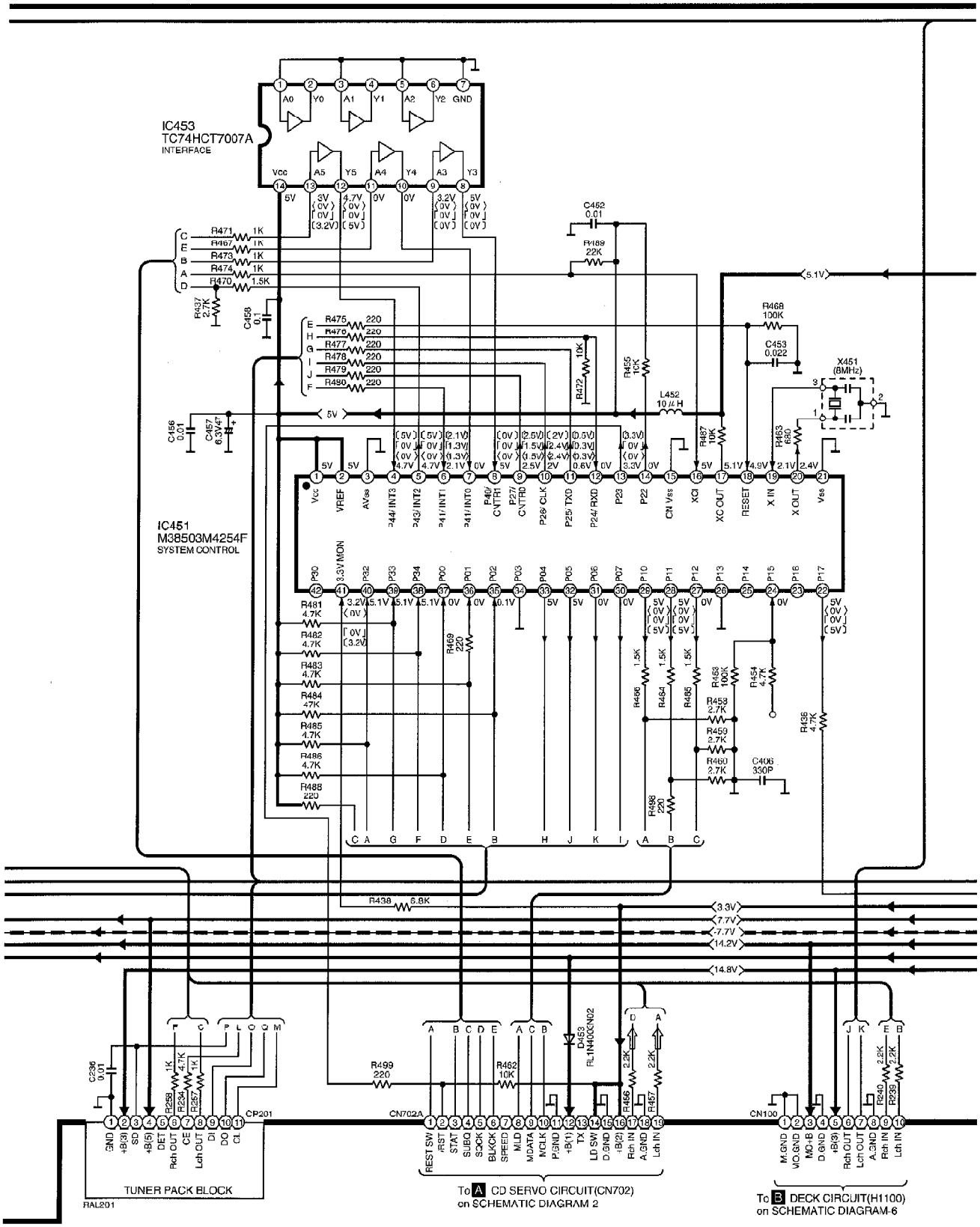
K MAIN CIRCUIT

:MIC SIGNAL LINE
:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :CD SIGNAL LINE



SCHEMATIC DIAGRAM-12

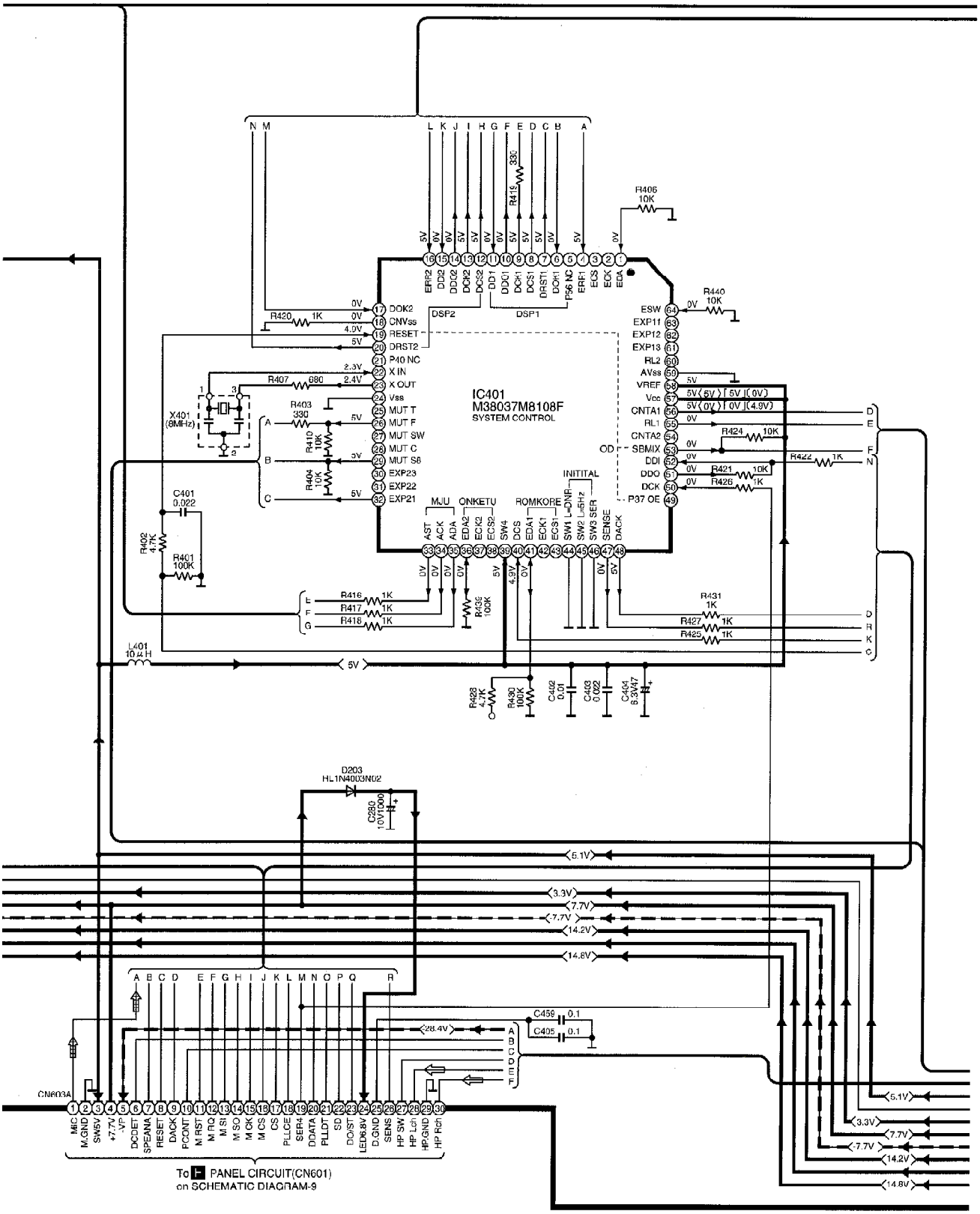
:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :CD SIGNAL LINE



SCHEMATIC DIAGRAM-13

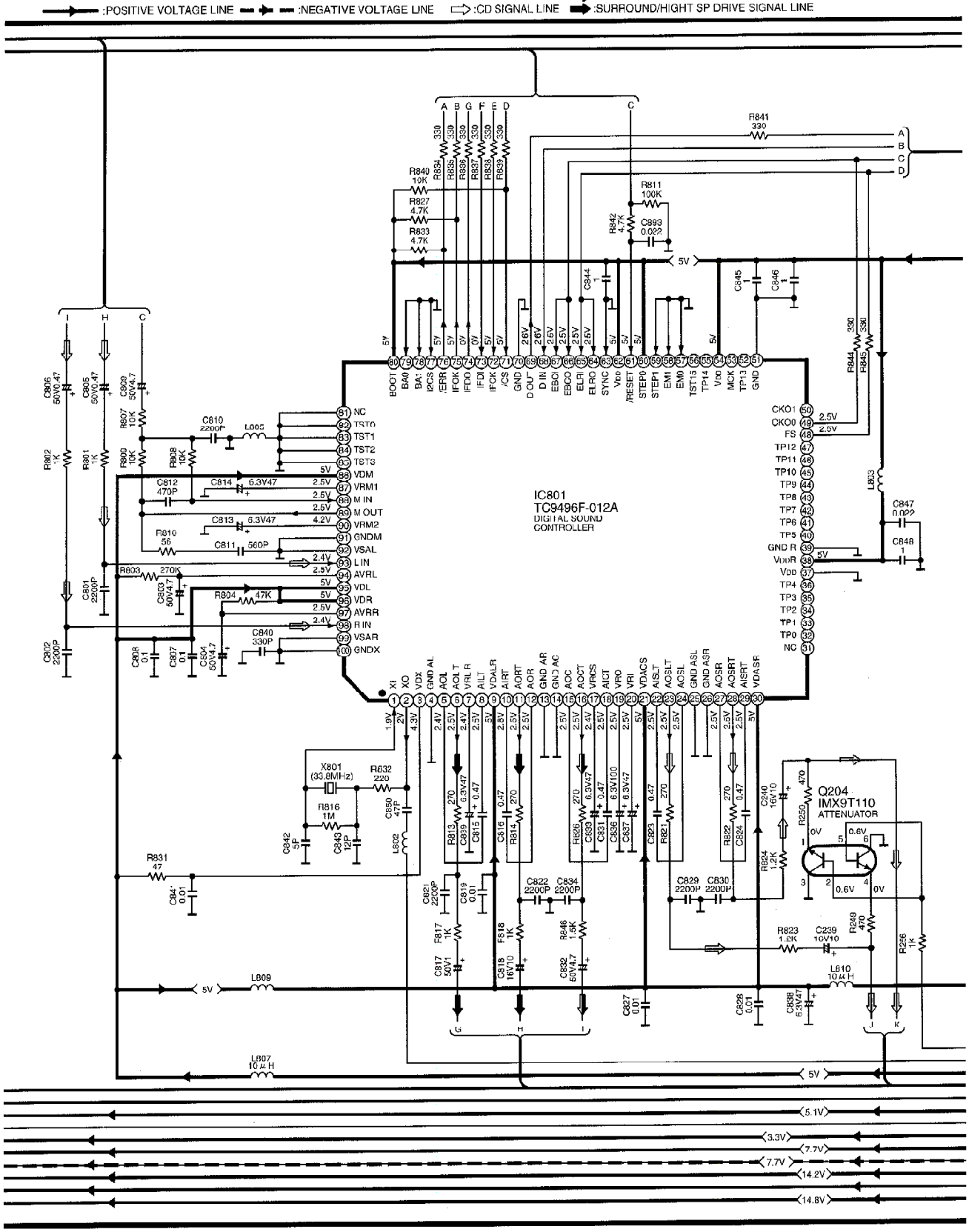
K MAIN CIRCUIT

:MIC SIGNAL LINE
:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :CD SIGNAL LINE



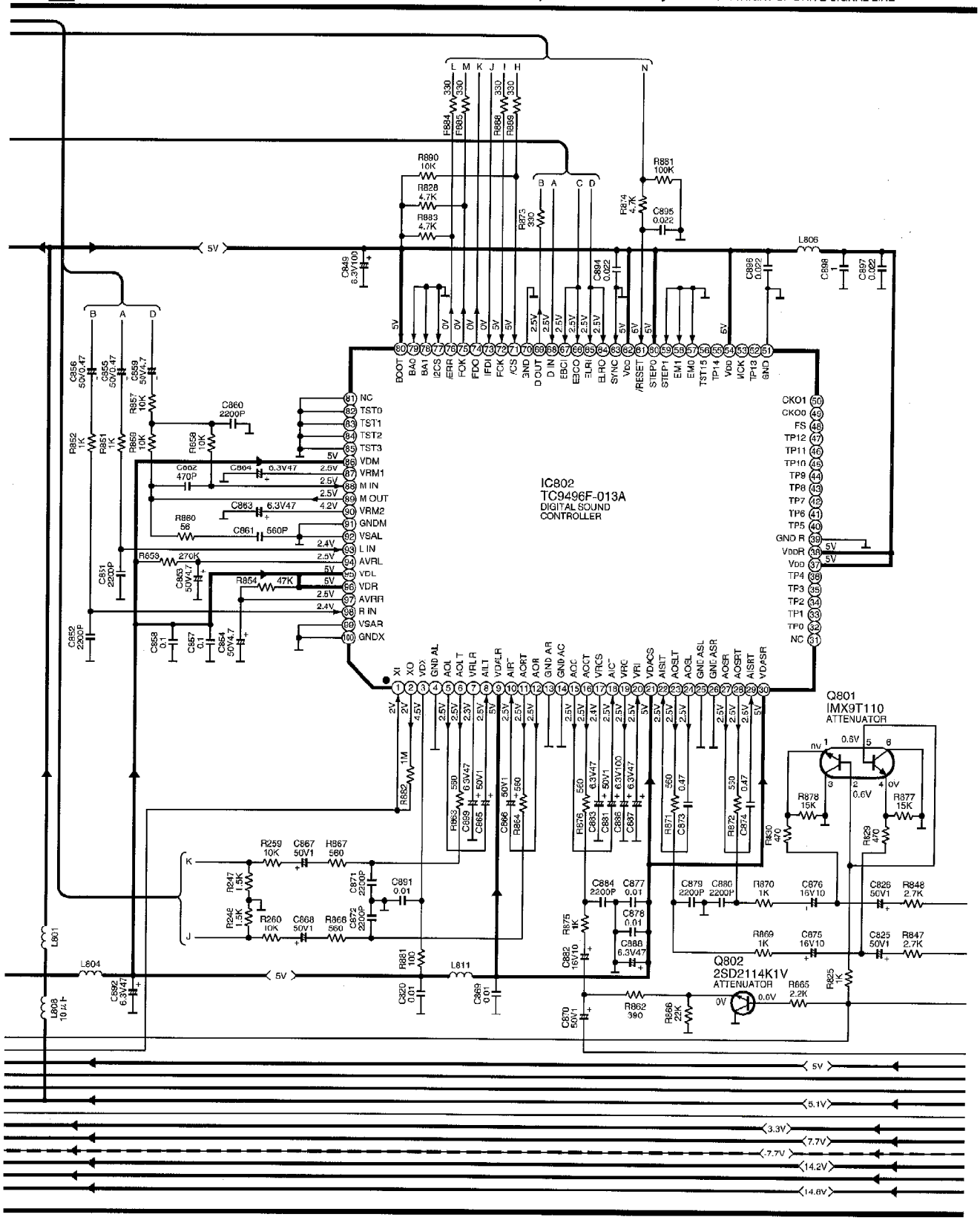
SCHEMATIC DIAGRAM-14

:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :CD SIGNAL LINE :SUB WOOFER/FRONT LOW SP DRIVE SIGNAL LINE :SURROUND/HIGHT SP DRIVE SIGNAL LINE



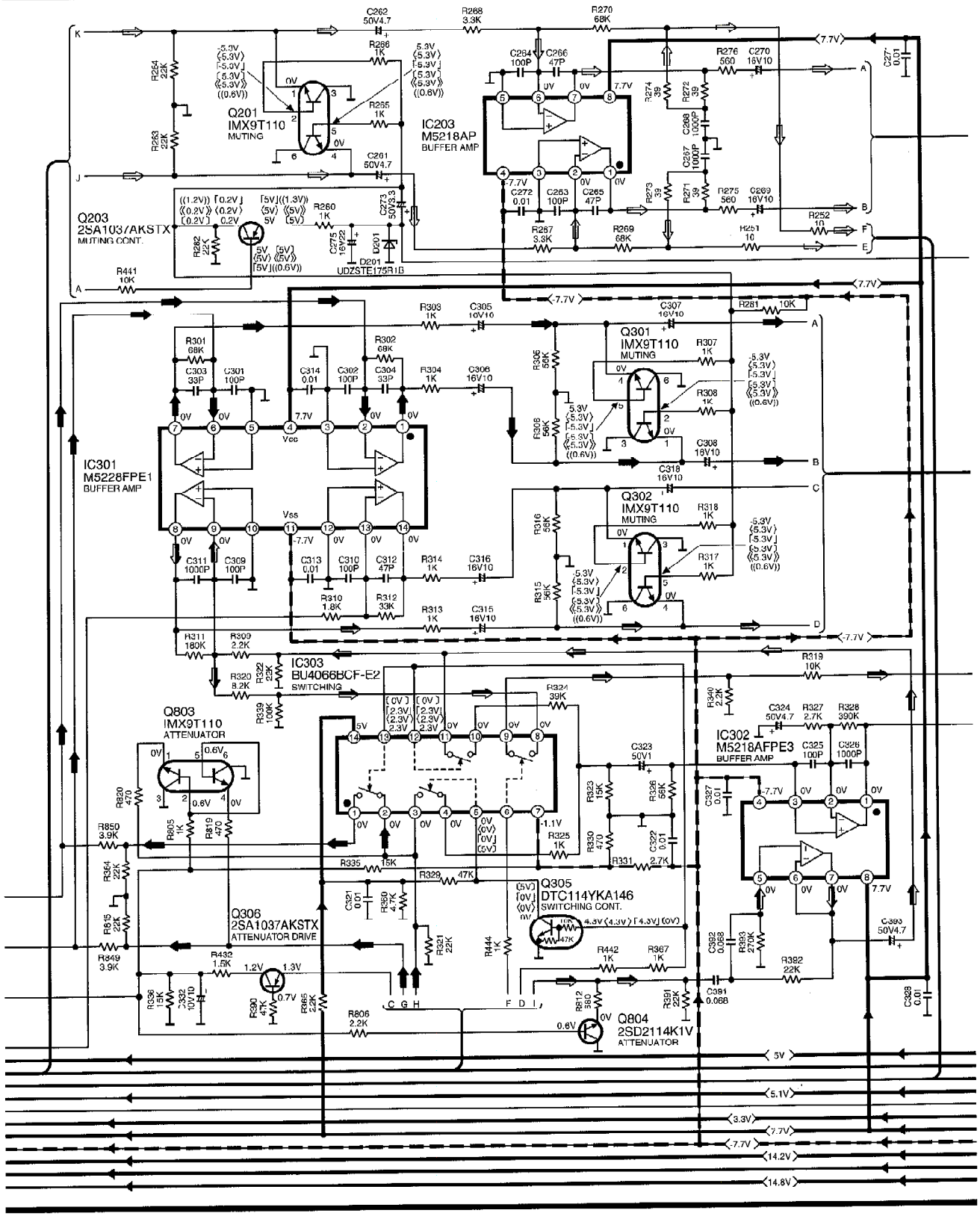
SCHEMATIC DIAGRAM-15
K MAIN CIRCUIT

:NEGATIVE VOLTAGE LINE
:POSITIVE VOLTAGE LINE
:CD SIGNAL LINE
:SUB WOOFER/FRONT LOW SP DRIVE SIGNAL LINE
:SURROUND/HIGHT SP DRIVE SIGNAL LINE



SCHEMATIC DIAGRAM-16

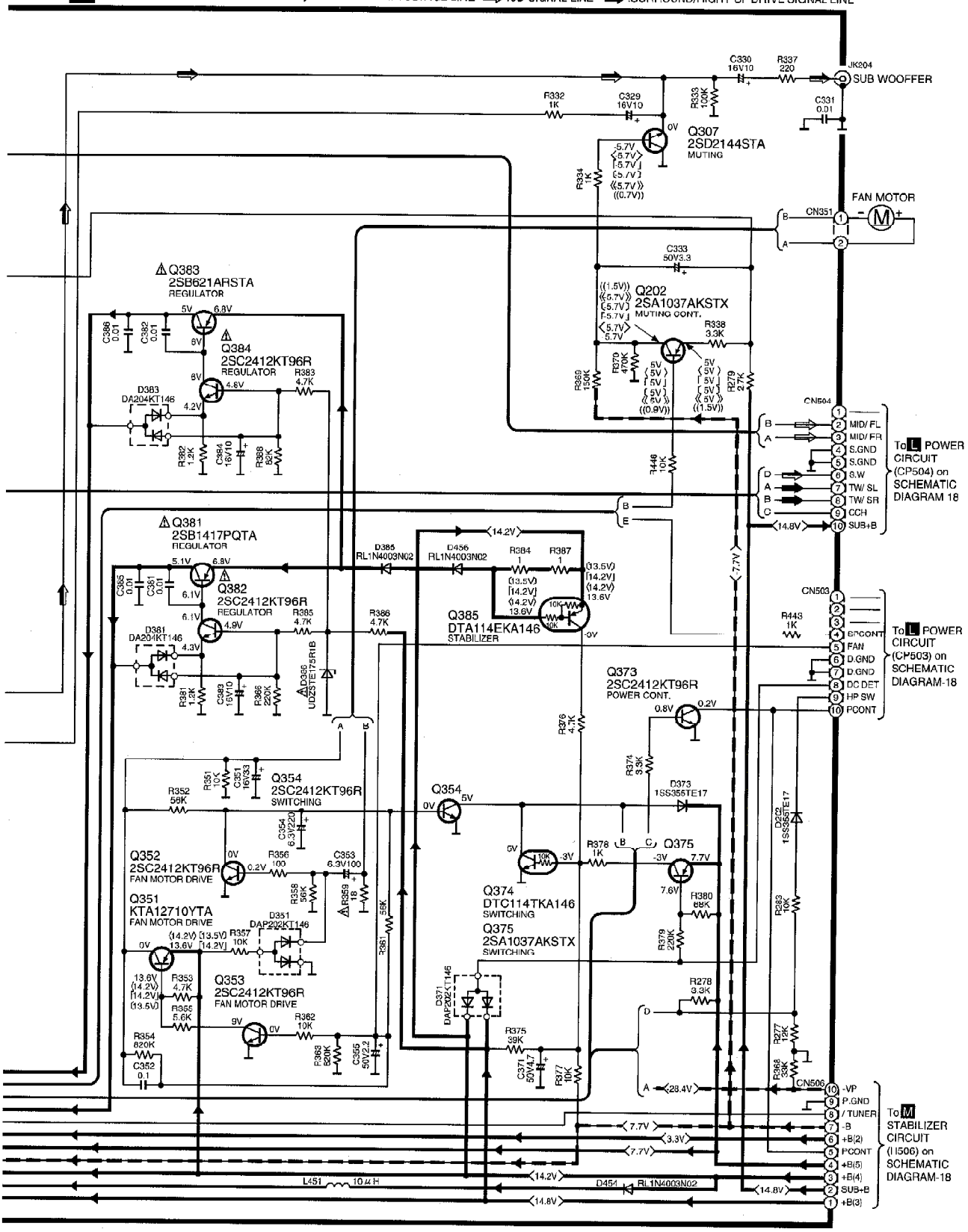
:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :CD SIGNAL LINE :SUB WOOFER/FRONT LOW SP DRIVE SIGNAL LINE :SURROUND/HIGHT SP DRIVE SIGNAL LINE



SCHEMATIC DIAGRAM-17

K MAIN CIRCUIT

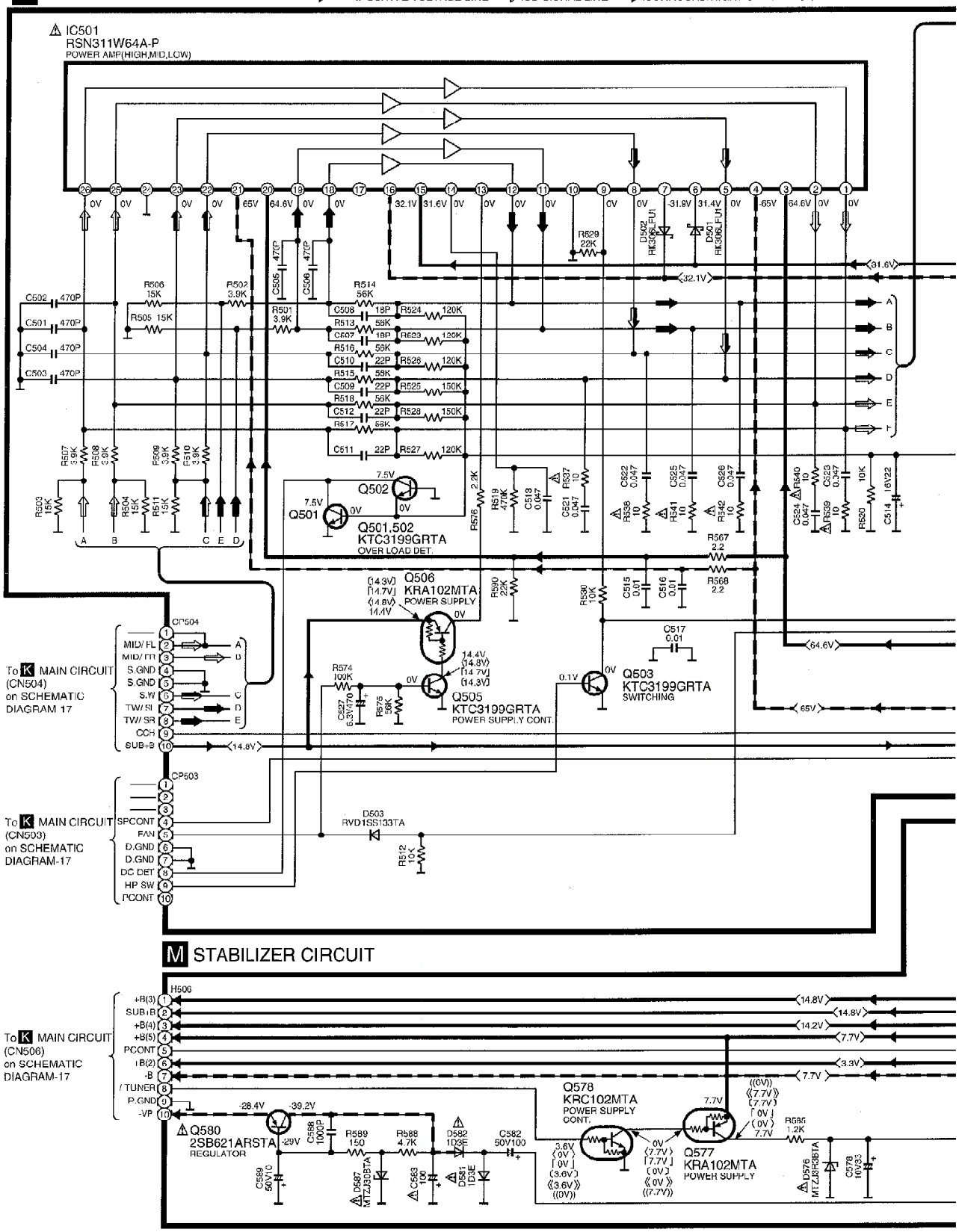
:NEGATIVE VOLTAGE LINE
:POSITIVE VOLTAGE LINE
:CD SIGNAL LINE
:SUB WOOFER/FRONT LOW SP DRIVE SIGNAL LINE
:SURROUND/HIGHT SP DRIVE SIGNAL LINE



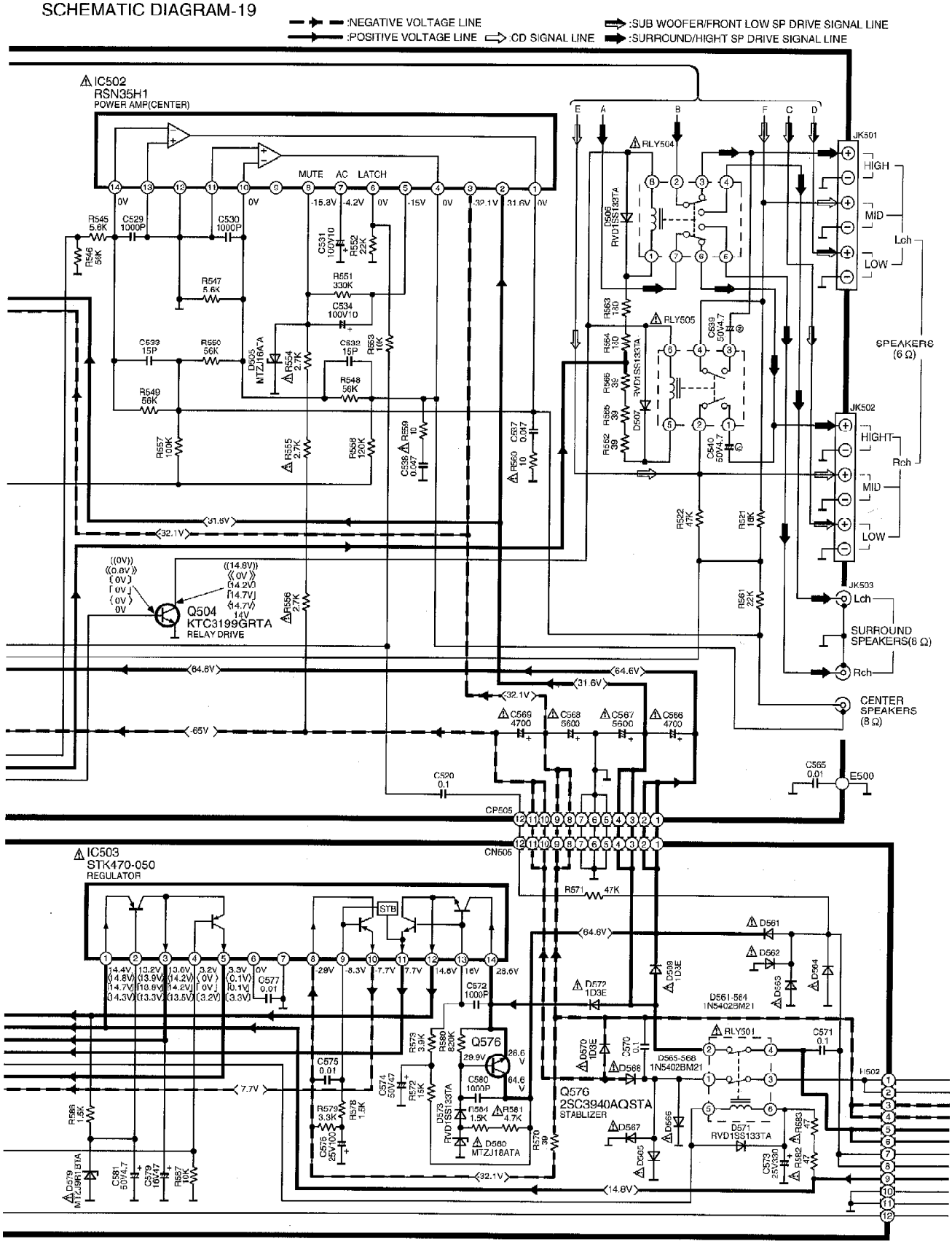
SCHEMATIC DIAGRAM-18

L POWER CIRCUIT

:NEGATIVE VOLTAGE LINE
:POSITIVE VOLTAGE LINE
:CD SIGNAL LINE
:SUB WOOFER/FRONT LOW SP DRIVE SIGNAL LINE
:SURROUND/HIGHT SP DRIVE SIGNAL LINE

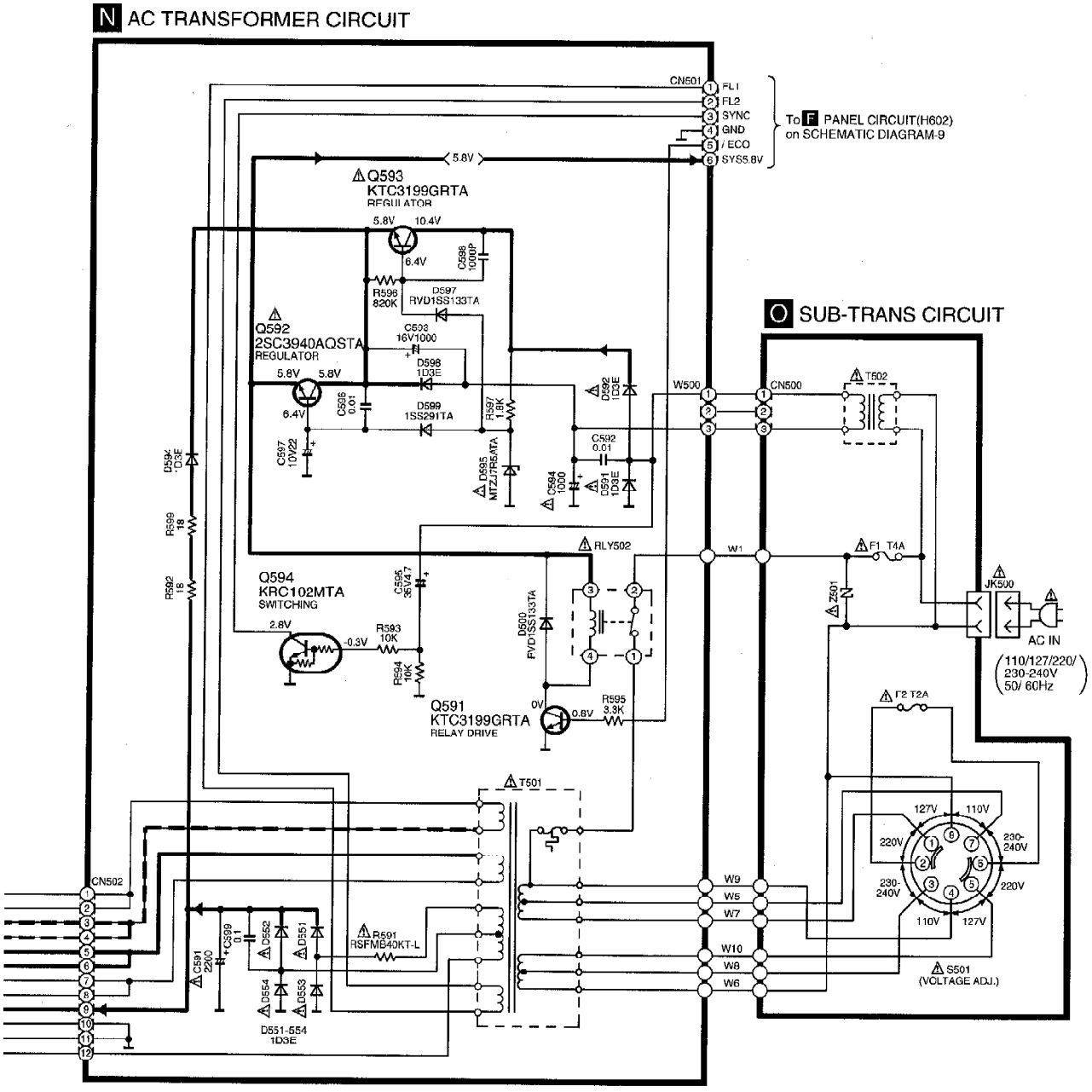


SCHEMATIC DIAGRAM-19

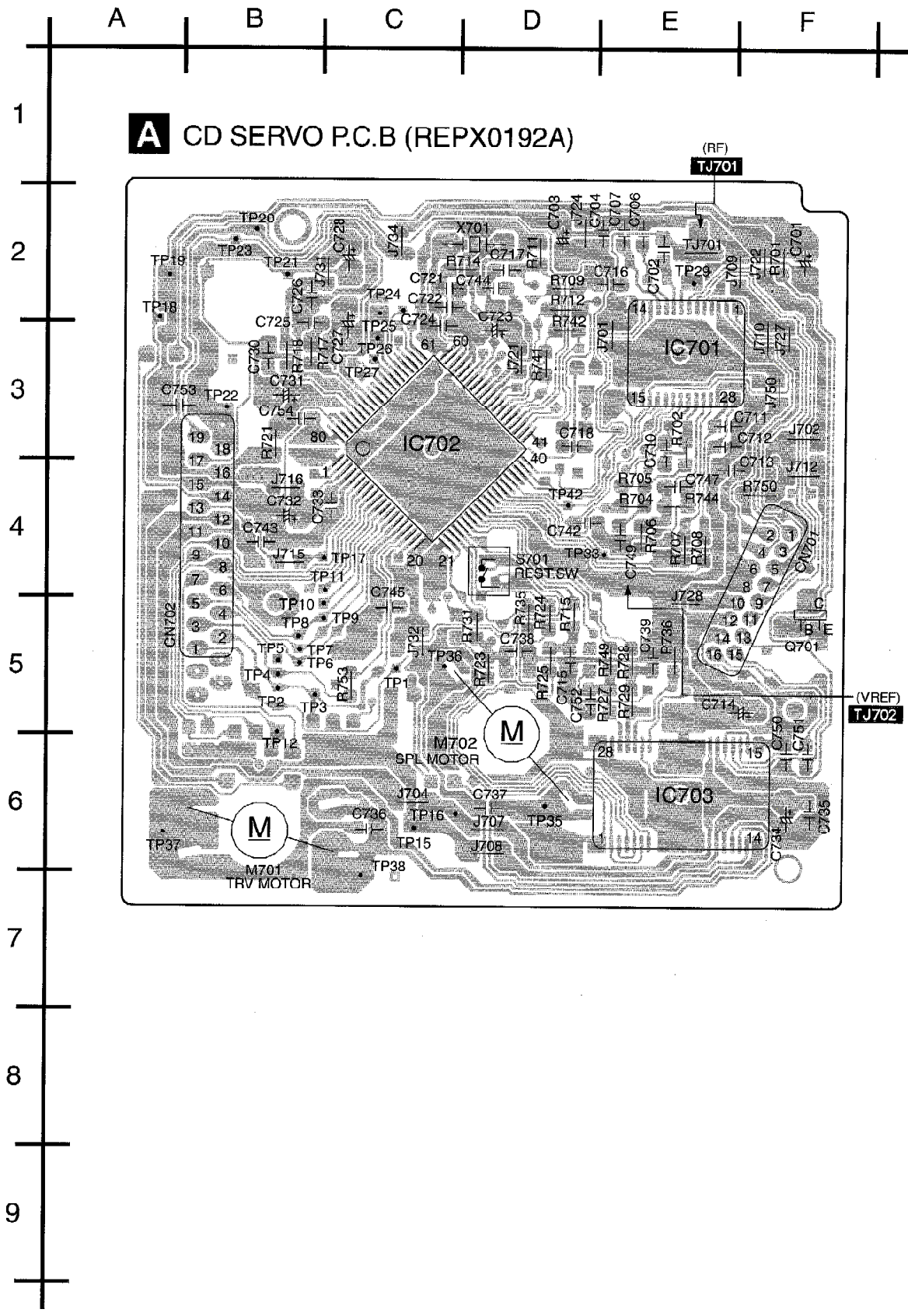


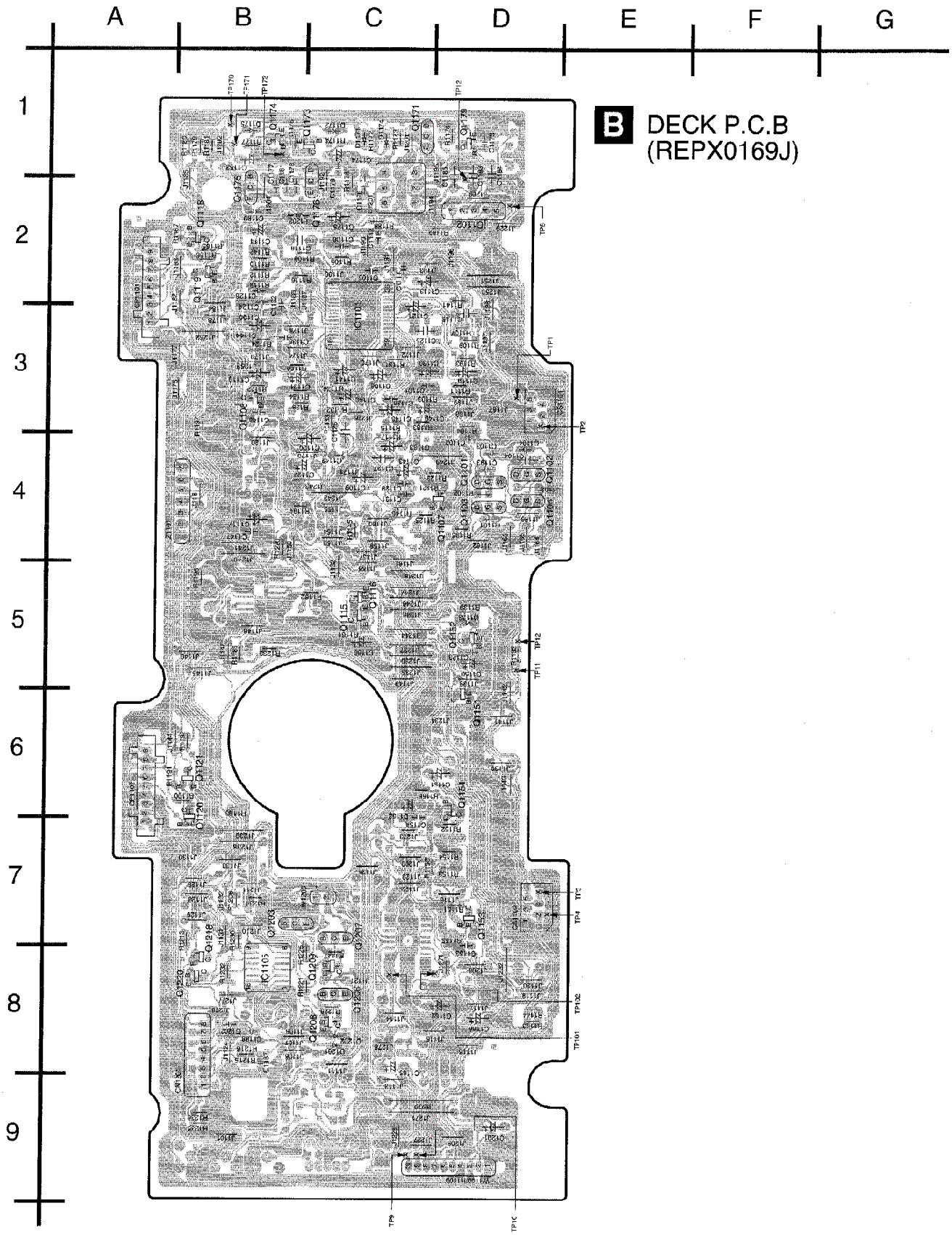
SCHEMATIC DIAGRAM-20

:NEGATIVE VOLTAGE LINE
:POSITIVE VOLTAGE LINE



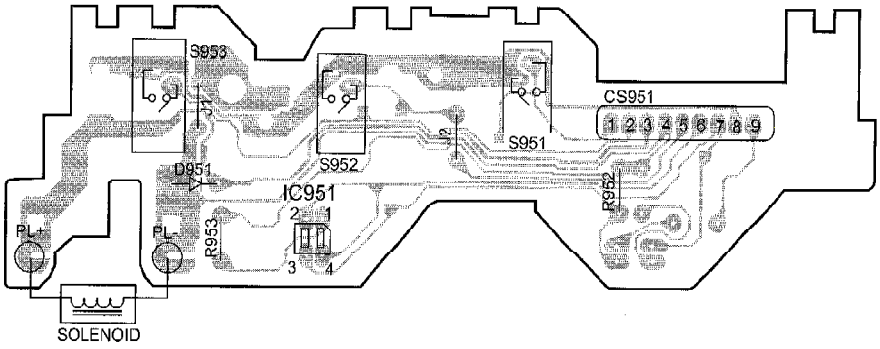
15 Printed Circuit Board



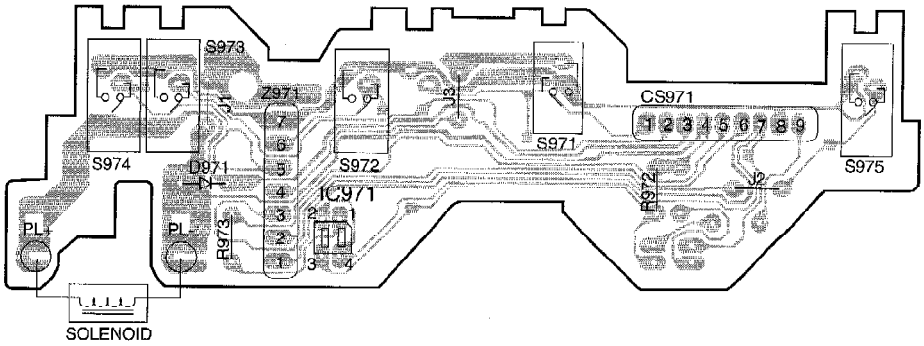


B DECK P.C.B
(REPX0169J)

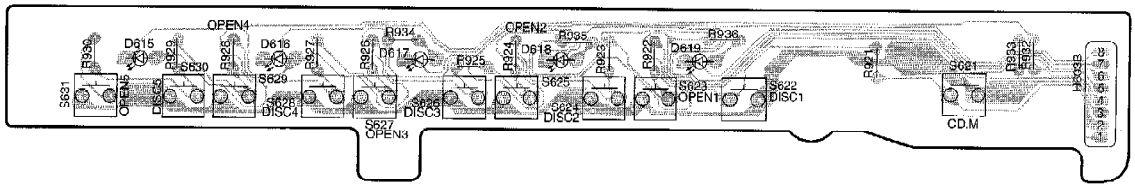
C MECHANISM (DECK 1) P.C.B (REPX0108A)

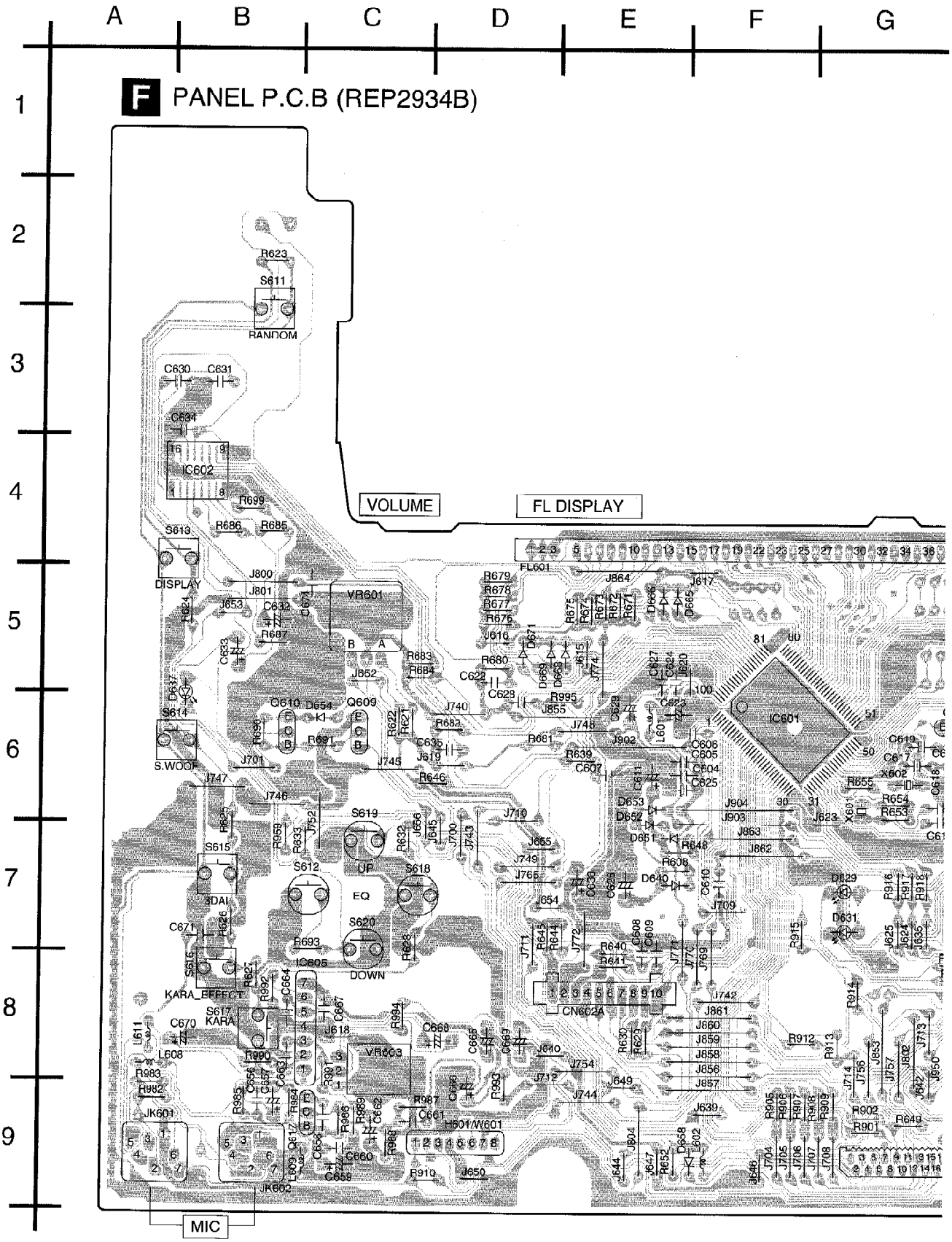


D MECHANISM (DECK 2) P.C.B (REPX0108)



E OPERATION (1) P.C.B (REP2934B)




A
B
C
D
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G
1
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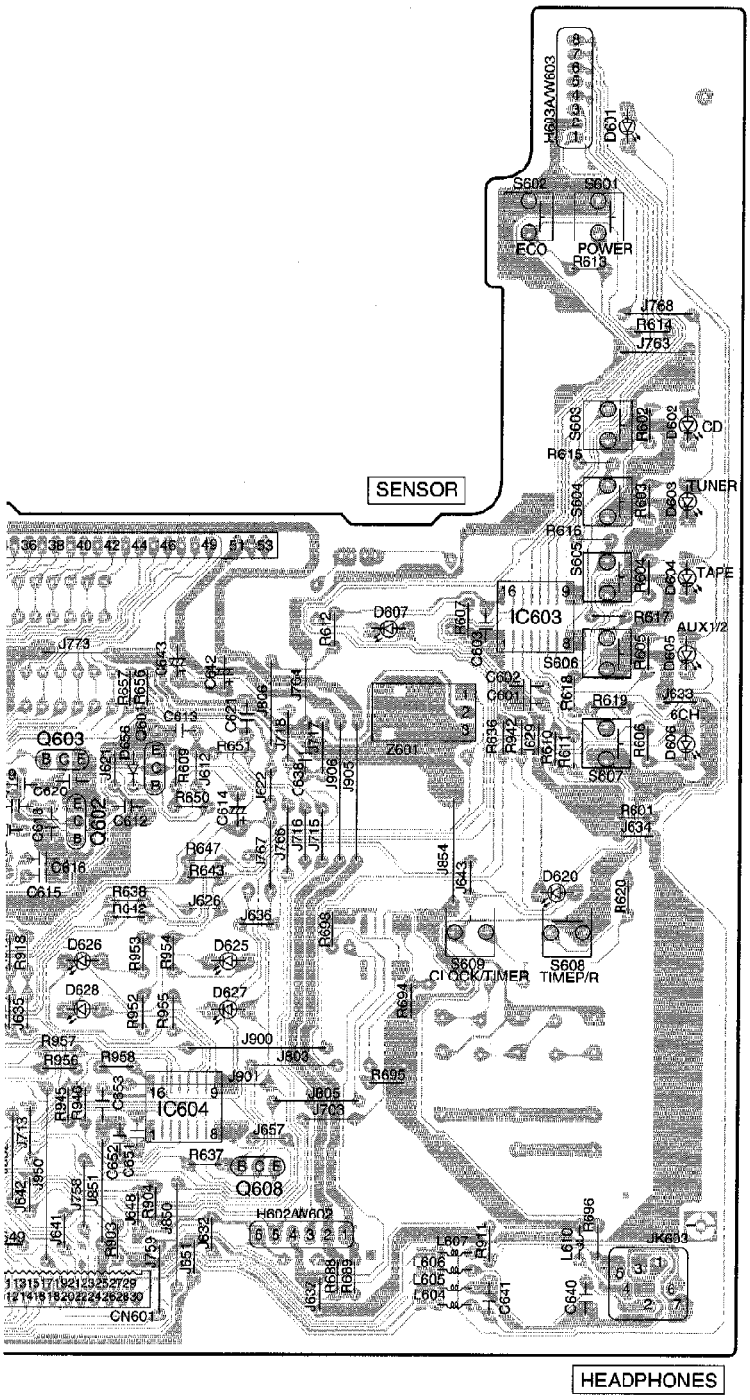
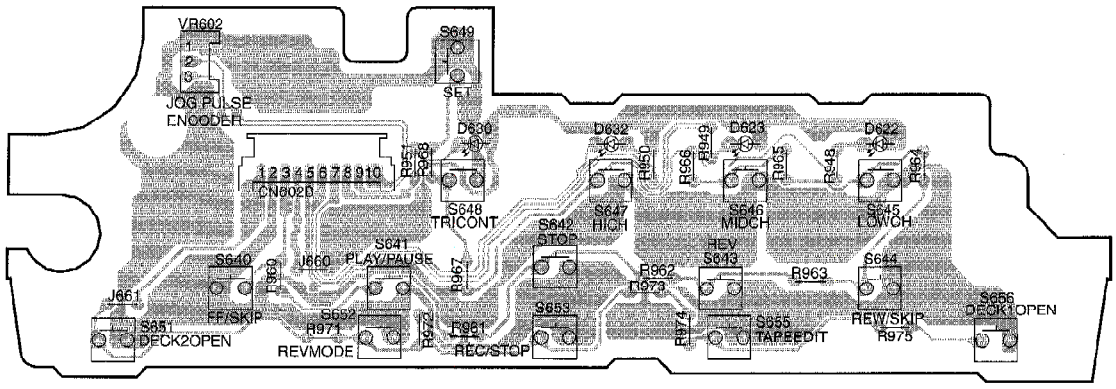
9
F PANEL P.C.B (REP2934B)
VOLUME
FL DISPLAY
MIC
DISPLAY
S.WOOF
3DAI
KARA_EFFECT
KARA
UP
EQ
DOWN
RANDOM
IC602
IC601
IC605
VR601
VR603
FL601
CN602A
JK601
JK602
L601/W601

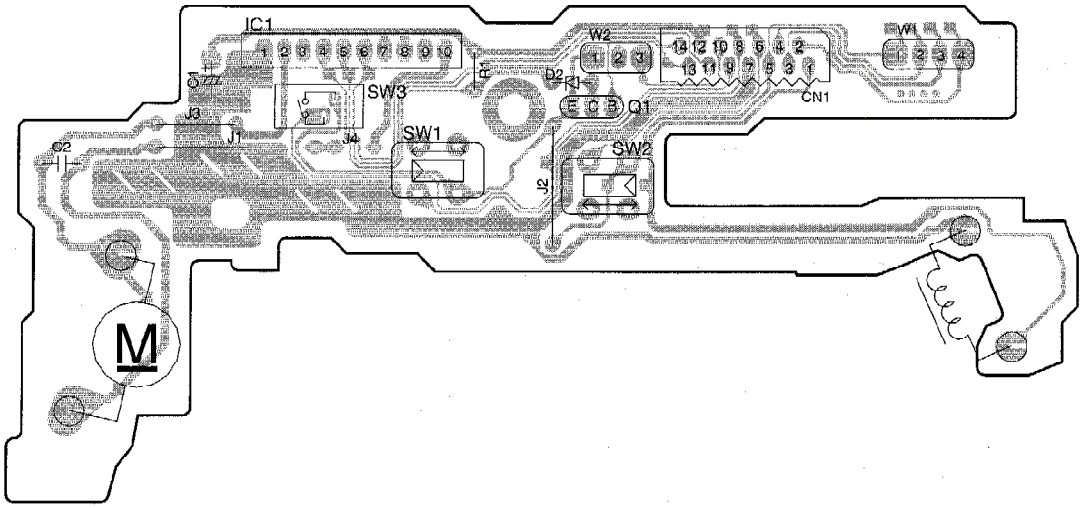
G H I J K L M


SENSOR
HEADPHONES
IC603
IC604
Q603
Q608
Z601
CN601
H602A/W602
H603A/W603
S602
S601
ECO
POWER
S603
S604
S605
S606
S607
S609
CLOCK/TIMER
S608
TIMEP/R
D601
D602
CD
D603
TUNER
D604
TAPE
D605
AUX1/2
D606
6CH
D607
D620
D625
D626
D627
D628
JK603
R613
R614
R615
R616
R617
R619
R620
R601
J768
J763
J773
J634
J633
J900
J901
J657
J854
J643
J626
J636
R647
R643
R638
R642
R957
R956
R958
R695
R694
R698
R996
L607
L610
L606
L605
L604
C640
C641

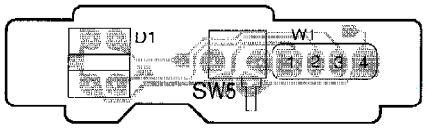
G OPERATION (2) P.C.B (REP2934B)



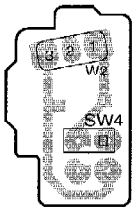
J LOADING MOTOR P.C.B (REP2578A-N)



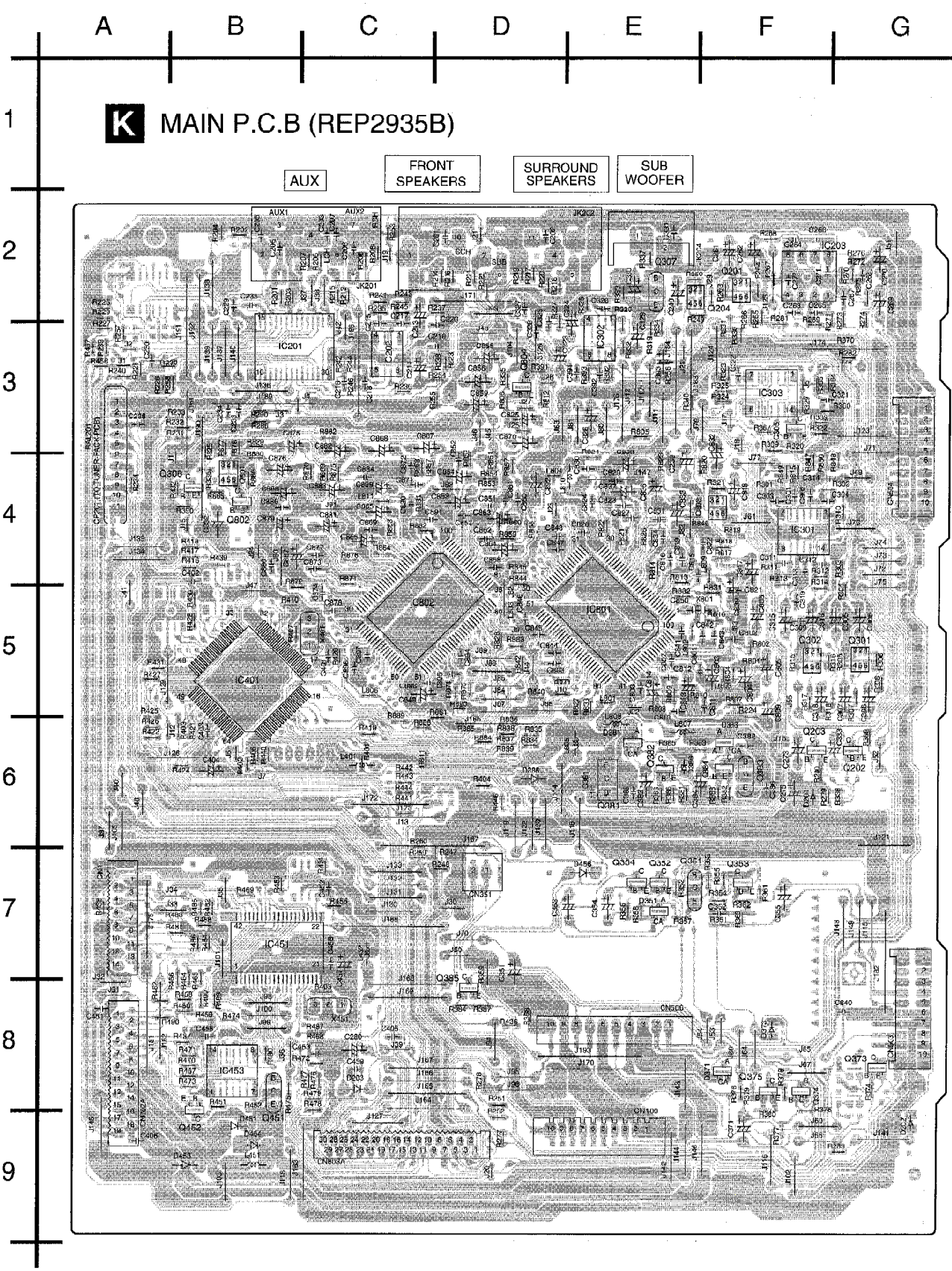
I SPINDLE POSITION P.C.B (REP2578A-N)



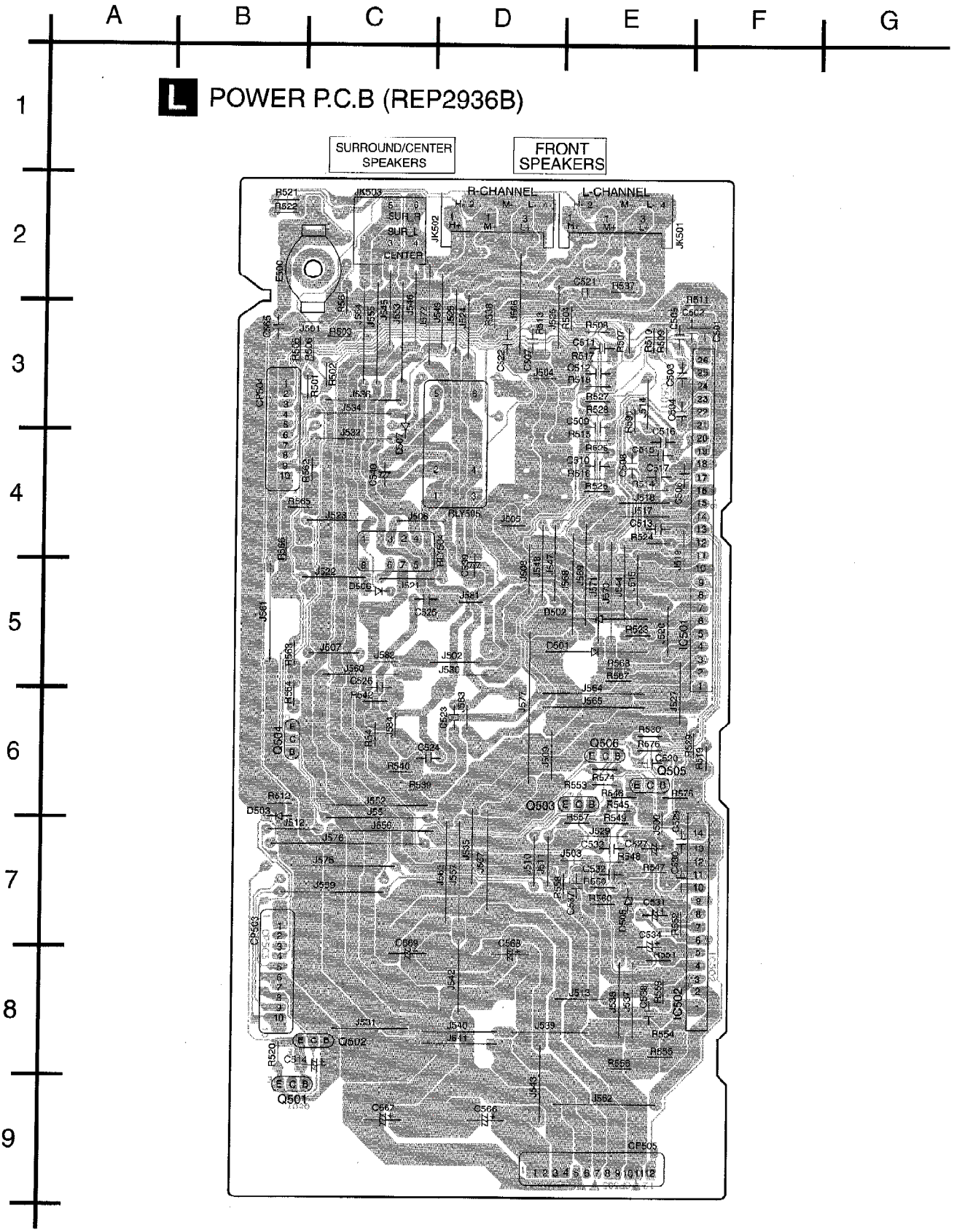
H CD-DETACT P.C.B (REP2578A-N)



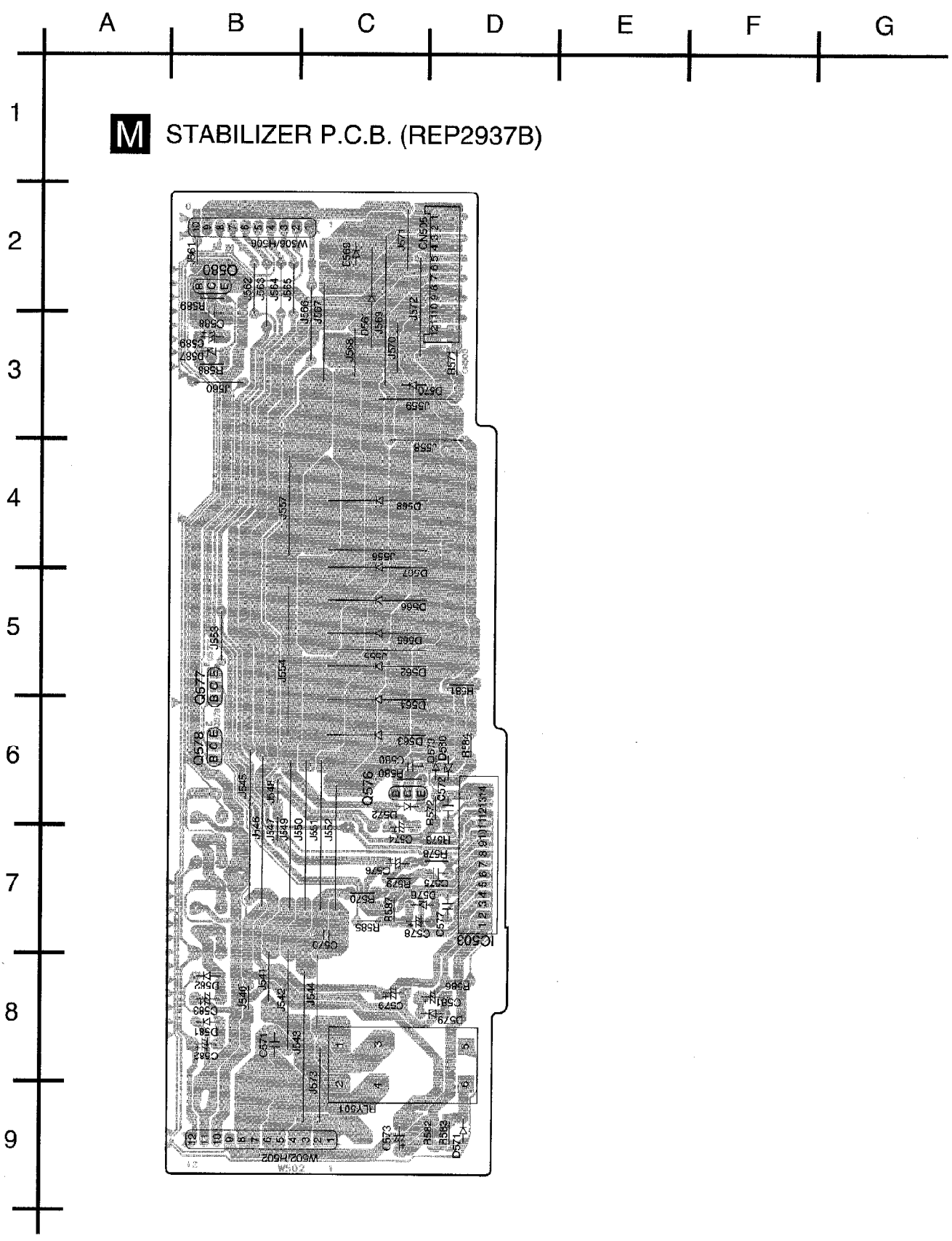
K MAIN P.C.B (REP2935B)



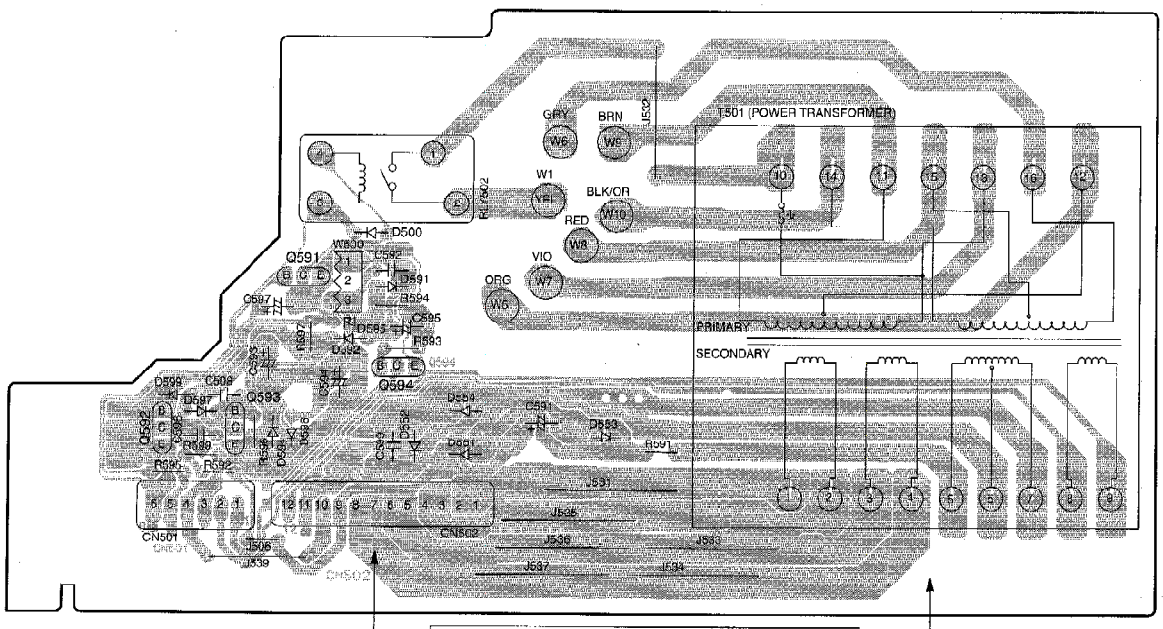
L POWER P.C.B (REP2936B)



M STABILIZER P.C.B. (REP2937B)

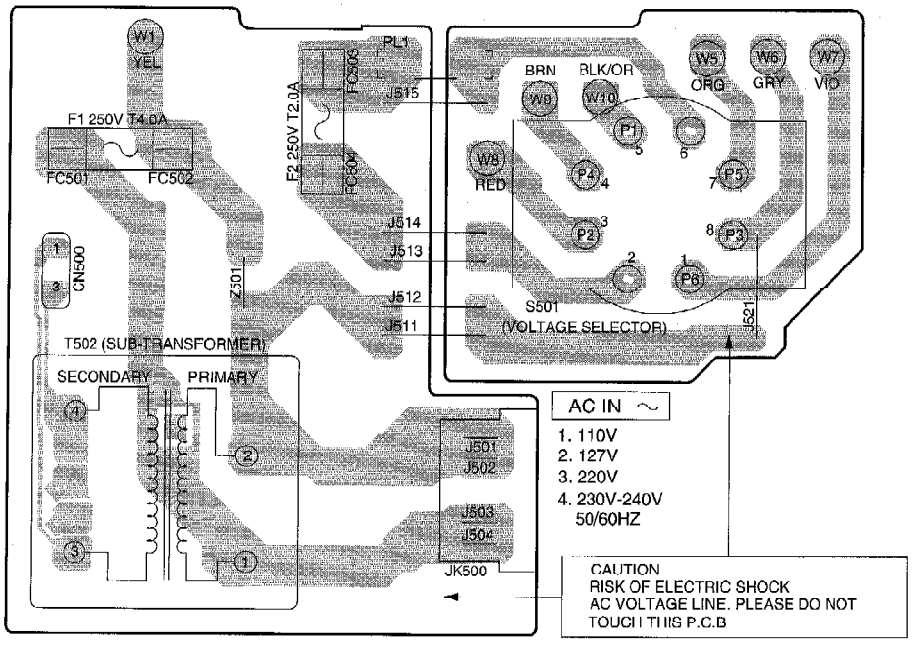


N AC TRANSFORMER P.C.B (REP2937B)

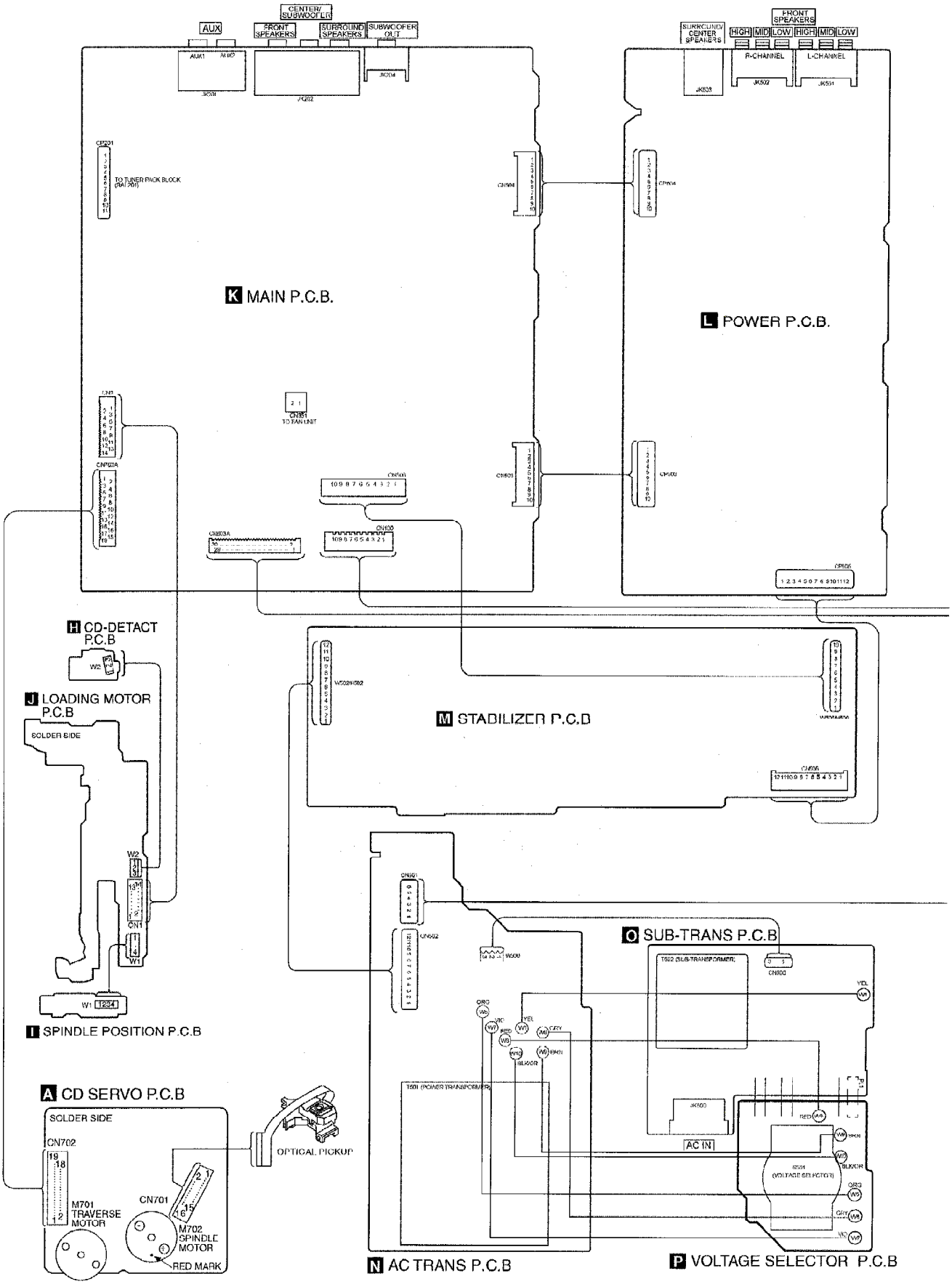


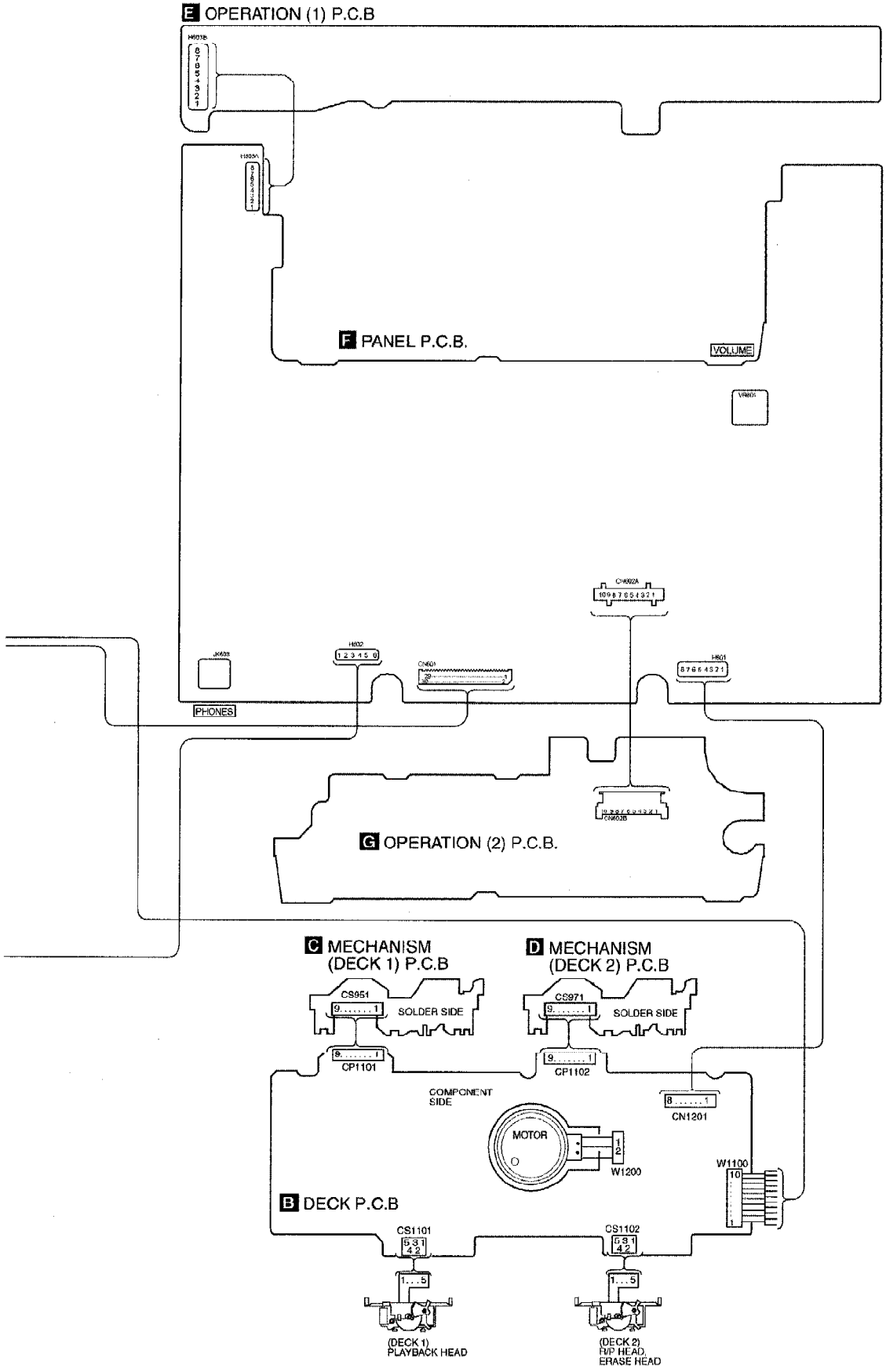
O SUB-TRANS P.C.B (REP2937B)

P VOLTAGE SELECTOR P.C.B (REP2937B)

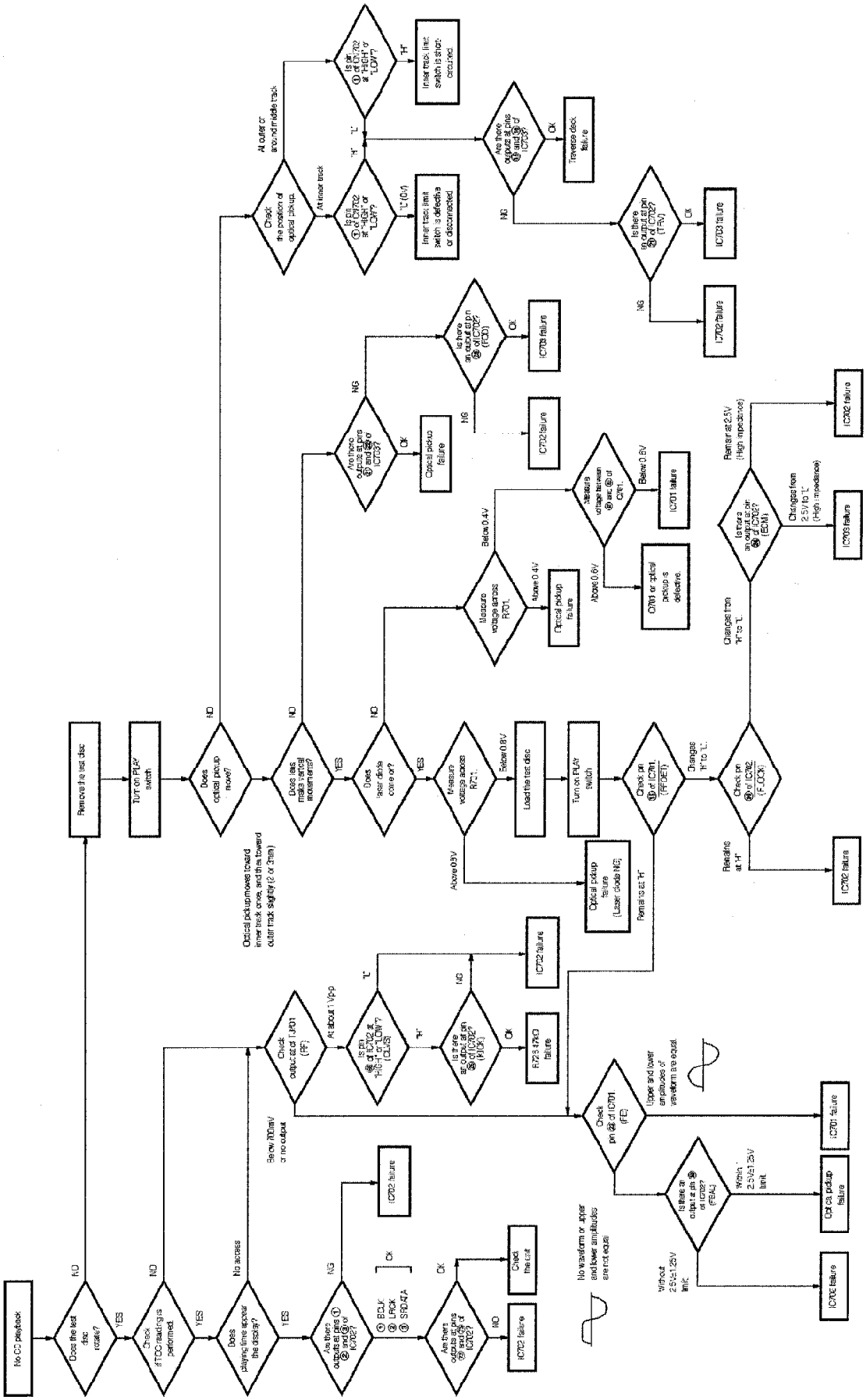


16 Wiring Connection Diagram




E OPERATION (1) P.C.B
F PANEL P.C.B.
VOLUME
PHONES
G OPERATION (2) P.C.B.
C MECHANISM (DECK 1) P.C.B
D MECHANISM (DECK 2) P.C.B
CS951
SOLDER SIDE
CS971
SOLDER SIDE
CP1101
CP1102
COMPONENT SIDE
CN1201
MOTOR
W1200
W1100
B DECK P.C.B
CS1101
CS1102
(DECK 1) PLAYBACK HEAD
(DECK 2) R/P HEAD, ERASE HEAD

17 Troubleshooting Guide



18 Parts Location and Replacement Parts List

Notes:

- Important safety notice:

  Components identified by ⚠ mark have special characteristics important for safety.

  Furthermore, special parts which have purposes of fire-retardent (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.

  When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
- The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to teh cover page for area or colour)

  Parts without these indications can be used for all areas.
- Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode".

  ACHTUNG:

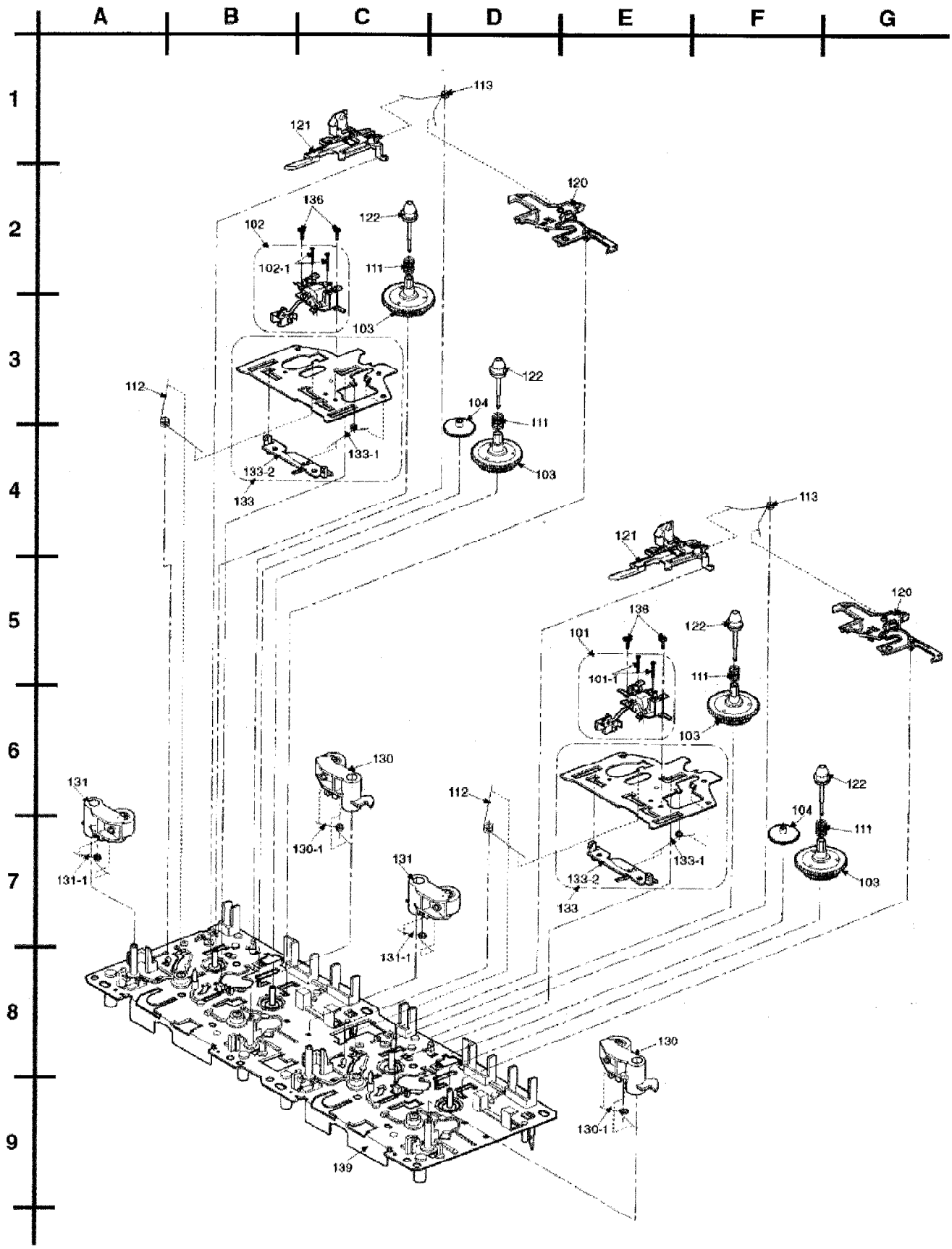
  – Die Lasereinheit nicht zerlegen.

  – Die Lasereinheit darf nur gegen eine vom Hertsteller spezifizierte Einheit ausgetauscht werden.
- Capacitor values are in microfarads (μF) unless specified otherwise, P= Pico-farads (pF), F= Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).
- The marking (RTL) indicates that the Retention Time is limited for this items. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of a availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- [M] Indicates in the Remarks columns indicates parts supplied by **MESA.**
- The "(SF)" mark denotes the standard part.
- Remote Control Unit: Supply period for three years from terminal of production.
- Reference for O/I book languages are as follows:

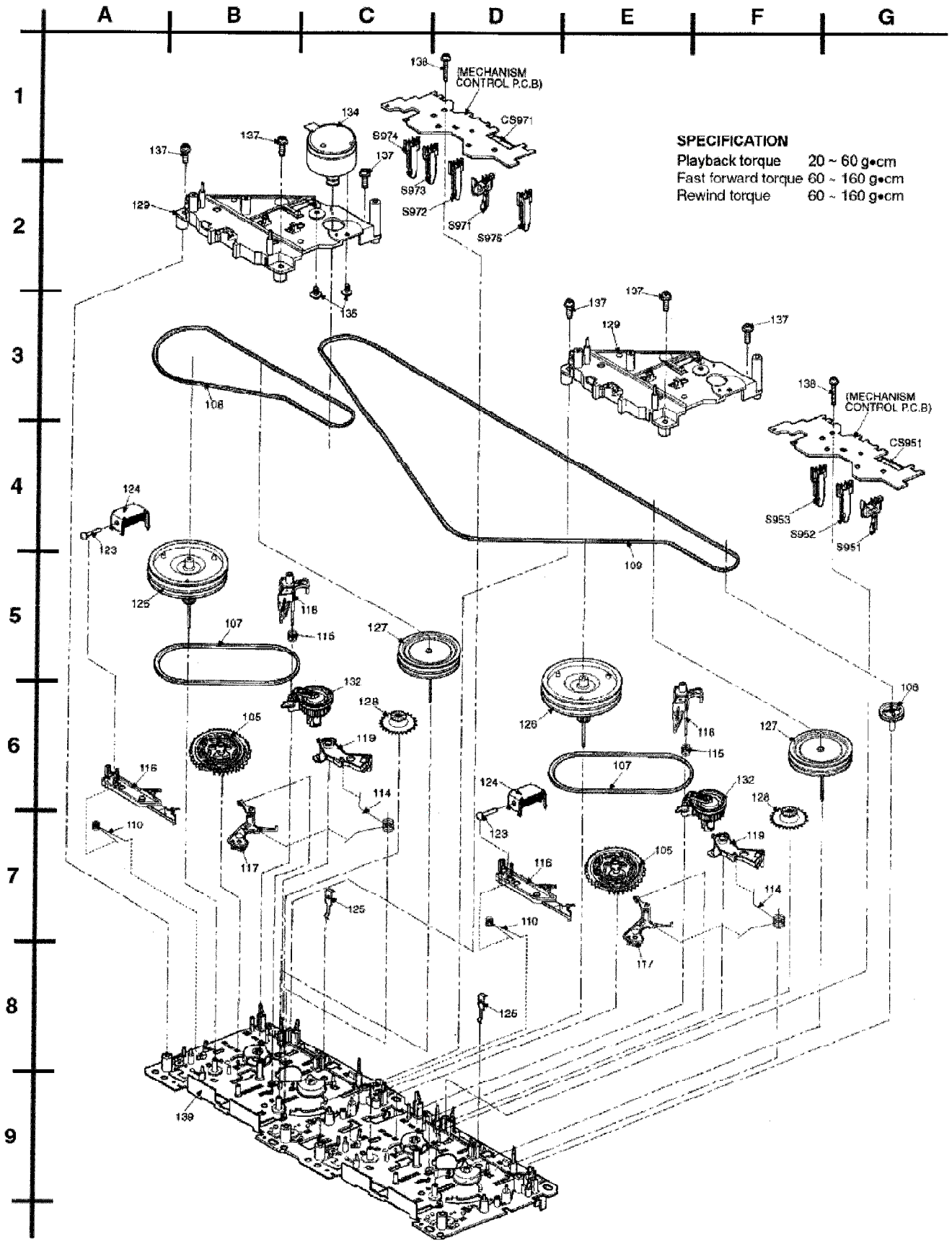
Ar :	Arabic	Du :	Dutch	It :	Italian	Sp :	Spanish
Cf :	Canadian French	En :	English	Ko :	Korean	Sw :	Swedish
Cz :	Czech	Fr :	French	Po :	Polish	Co :	Traditional Chinese
Da :	Danish	Ge :	German	Ru :	Russian	Cn :	Simplified Chinese

18.1. Deck Mechanism (RAA3408)

18.1.1. Deck Mechanism Parts Location



SA-AK78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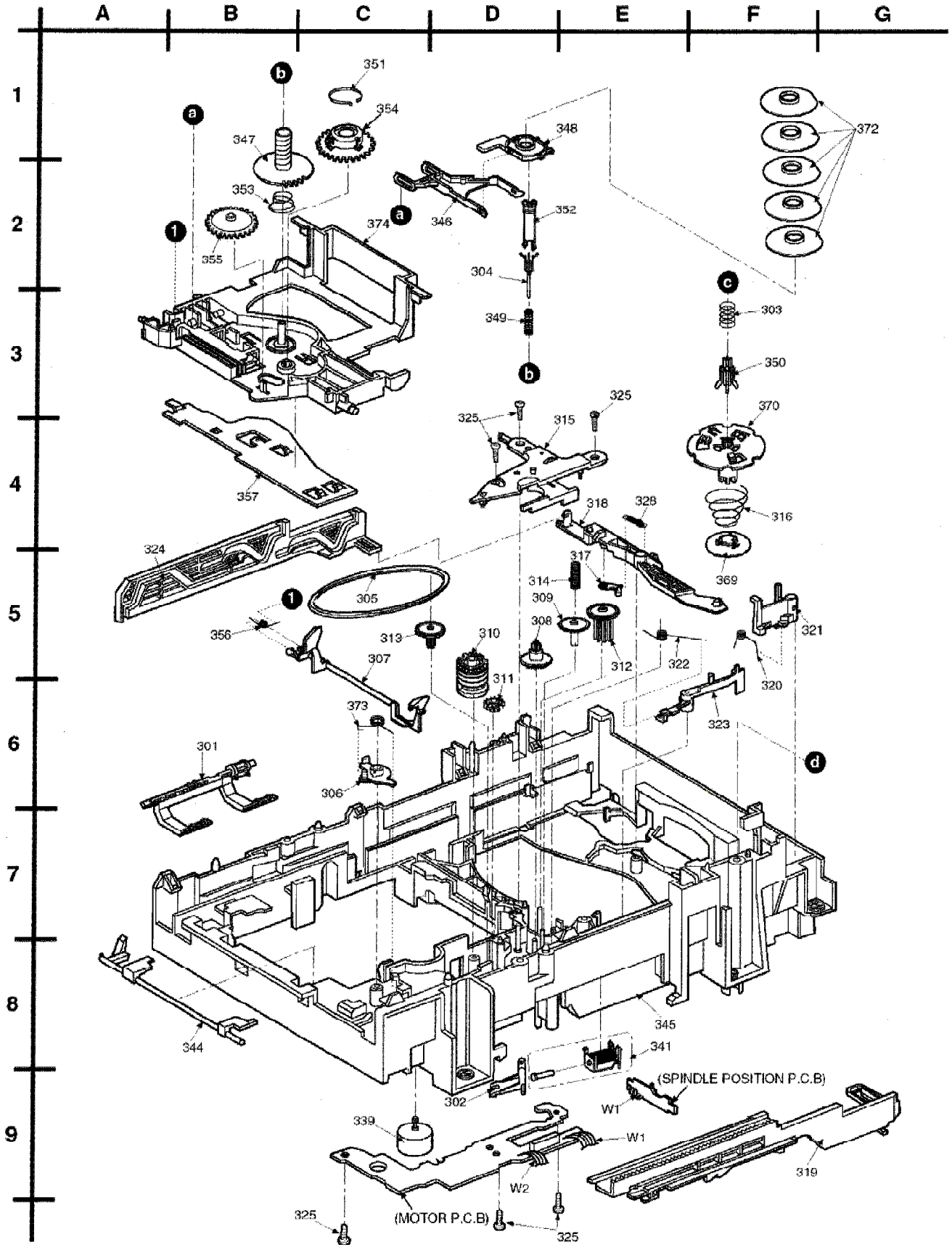
(MECHANISM CONTROL P.C.B)
CS971
S974
S973
S972
S971
S975
SPECIFICATION
Playback torque 20 ~ 60 g•cm
Fast forward torque 60 ~ 160 g•cm
Rewind torque 60 ~ 160 g•cm
(MECHANISM CONTROL P.C.B)
CS951
S953
S952
S951

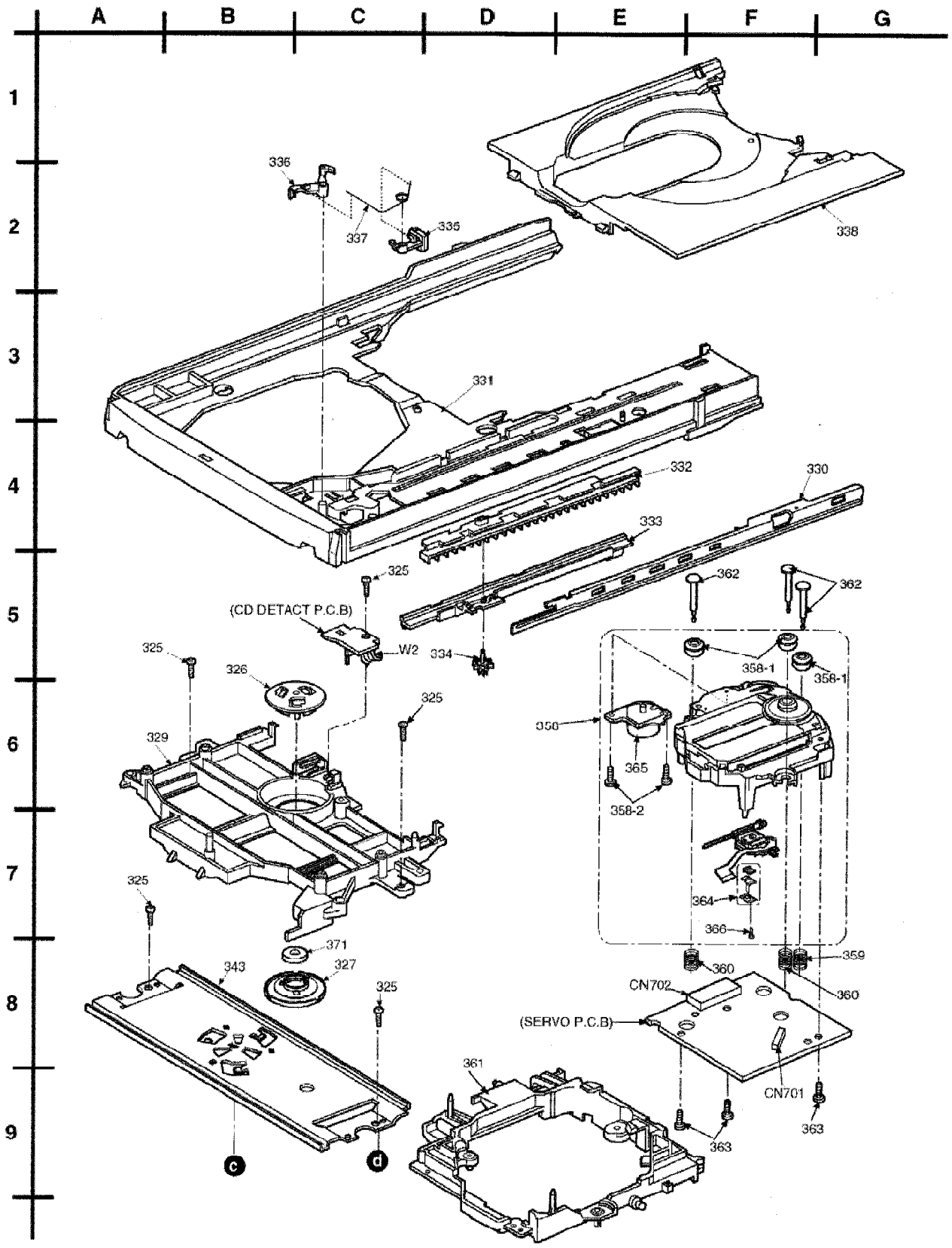
18.1.2. Deck Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RED0050	R/P HEAD BLOCK UNIT	[M]
101-1	RHE5152ZB	SCREW	[M]
102	RED0051	P/B HEAD BLOCK UNIT	[M]
102-1	RHE5152ZB	SCREW	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026	MAIN GEAR	[M]
106	RDR0029	RELAY PULLEY	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0034-1	CAPSTAN BELT 'A'	[M]
109	RDV0057	MAIN BELT B	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	REEL SPRING	[M]
112	RMB0403	HEAB PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406	FR LEVER SP	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372	WINDING LEVER	[M]
119	RML0374	EJECT LEVER	[M]
120	RMM0131	BRAKE ROD	[M]
121	RMM0133-1	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RSJ0003	PLUNGER	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0061	FLYWHEEL 'F' ASS'Y	[M]
127	RXF0062	FLYWHEEL 'R' ASS'Y	[M]
128	RXG0040	FF RELAY GEAR ASS'Y	[M]
129	RMK0283A-J	SUB CHASSIS	[M]
130	RXL0124	PINCH ROLLER 'F' ASS	[M]
130-1	RMB0401	PINCH ARM SPRING 'F'	[M]
131	RXL0125	PINCH ROLLER 'R' ASS	[M]
131-1	RMB0402	PINCH ARM SPRING 'R'	[M]
132	RXL0126	WINDING ARM ASS'Y	[M]
133	RXQ0412	HEAD PANEL ASS'Y	[M]
133-1	RMB0405	FR ROD SPRING	[M]
133-2	RMM0132	FR ROD	[M]
134	REM0088	CAP MOTOR ASS'Y	[M]
135	RHD26022	MOTOR SCREW	[M]
136	XTW2+5L	HEAD BLOCK UNIT SCRE	[M]
137	XTW26+10S	SUB-CHASSIS SCREW	[M]
138	XYC2+JF17	PCB EARTH SCREW	[M]
139	RFKJXED70-K	CHASSIS ASS'Y	[M]

18.2. CD Loading Mechanism (RD-DAC026-S)

18.2.1. CD Loading Mechanism Parts Location

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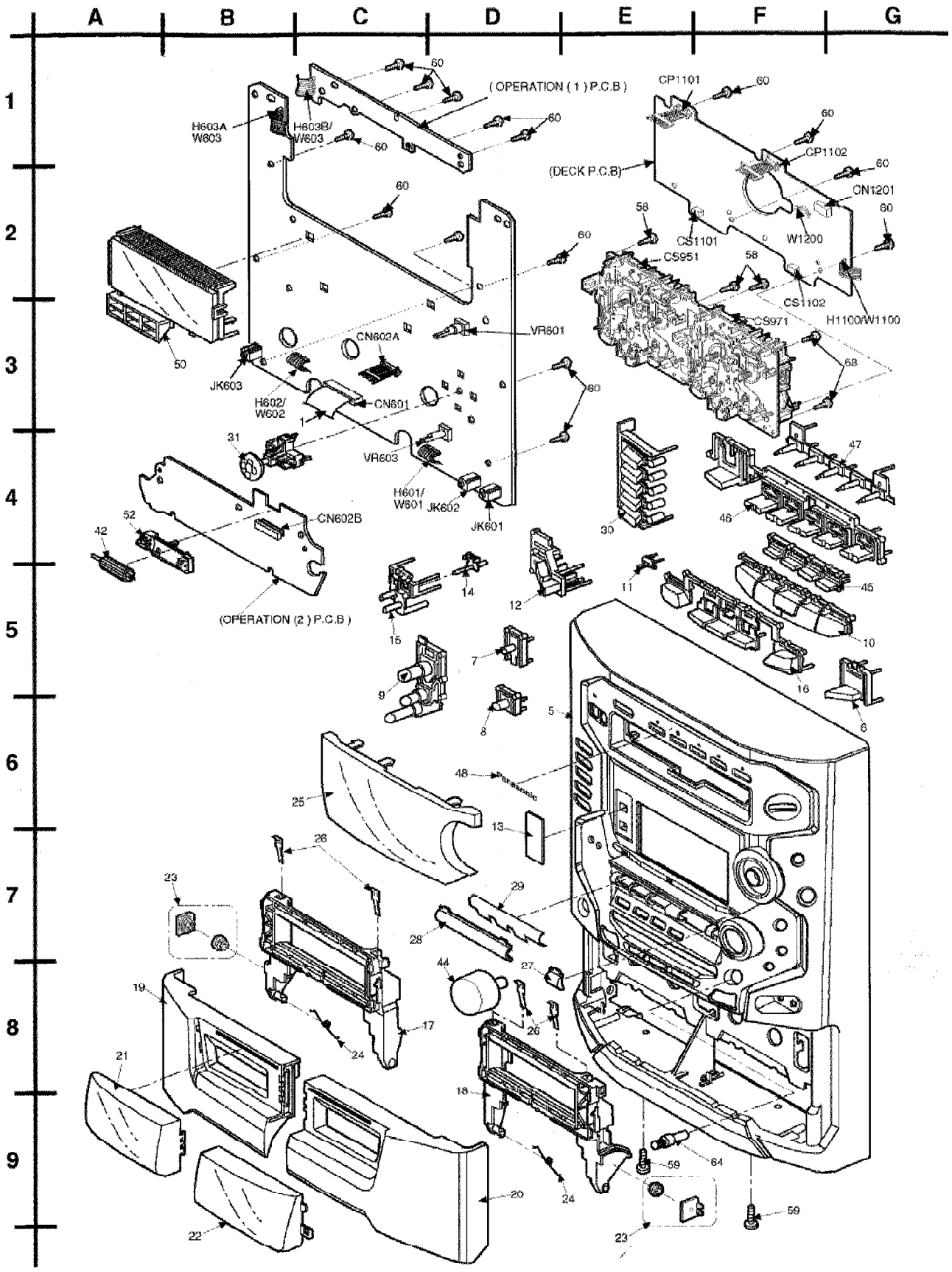
362
362
(CD DETACT P.C.B)
W2
334
358-1
358-1
325
326
325
329
350
365
358-2
364
366
325
371
343
327
325
360
359
CN702
360
(SERVO P.C.B)
361
CN701
363
363
c
d

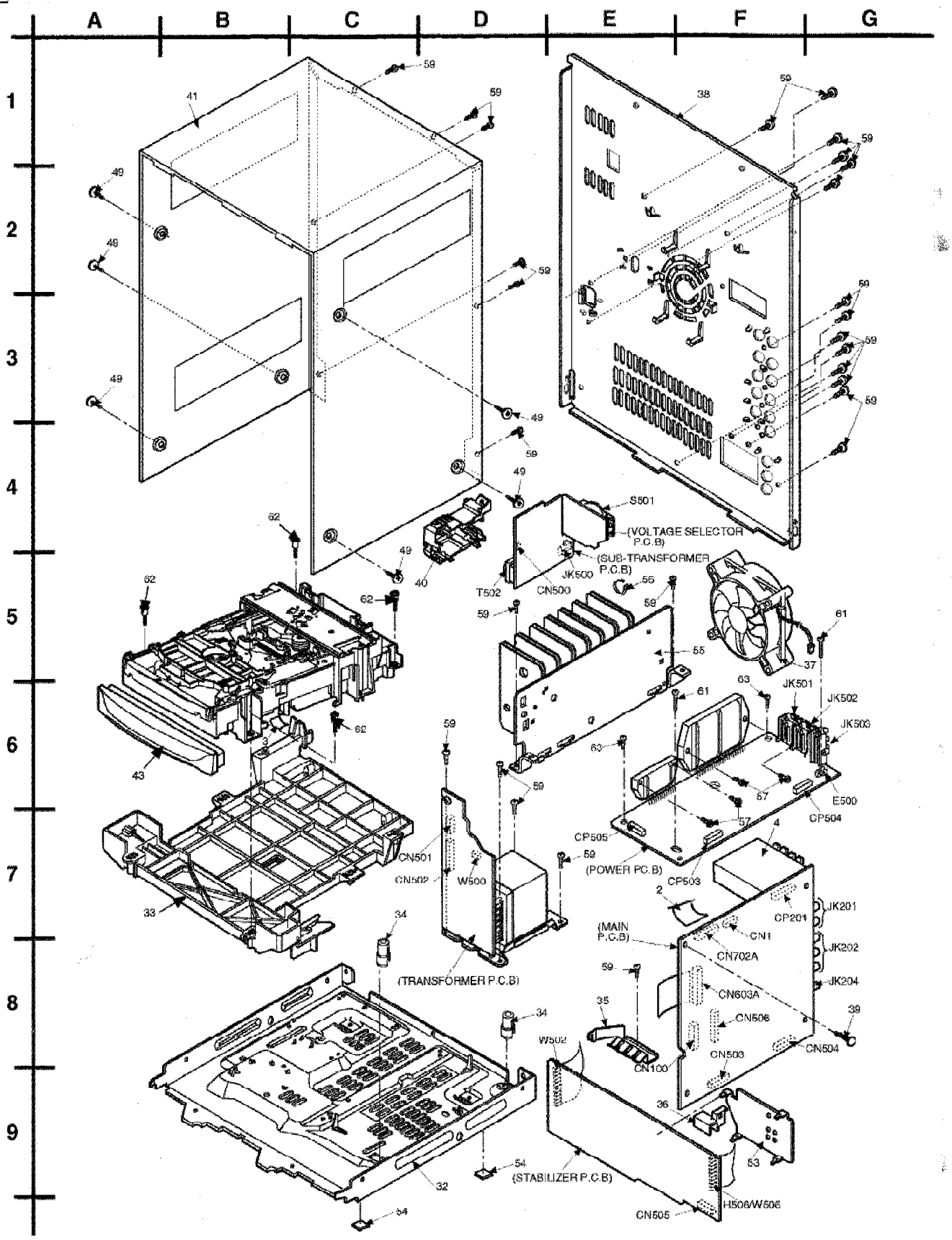
18.2.2. CD Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
301	RML0517	TIMING LEVER	[M]
302	RML0516	PLUNGER LEVER	[M]
303	RMB0551	UPPER SPINDLE SPRING	[M]
304	RMQ0744	LOWER HOOK	[M]
305	RDV0056	BELT	[M]
306	RML0525	FRONT LOCK LEVER	[M]
307	RML0526	DISC LEVER	[M]
308	RDG0424	DRIVE GEAR	[M]
309	RDG0425	CHANGE GEAR	[M]
310	RDG0427	TRAVERSE CAM GEAR	[M]
311	RDG0428	TRAVERSE RELAY GEAR	[M]
312	RDG0426	UP/DOWN GEAR	[M]
313	RDG0429	PULLEY GEAR	[M]
314	RMB0549-1	CHANGE GEAR SPRING	[M]
315	RMQ0748	PITCH PLATE	[M]
316	RMB0553	PUSH SPRING	[M]
317	RML0530	ASSIST LEVER	[M]
318	RML0518	CONNECTION LEVER	[M]
319	RMM0201	SLIDE PLATE 1	[M]
320	RME0258	REAR LOCK SPRING	[M]
321	RML0521	REAR LOCK	[M]
322	RME0257	TRAY LOCK LEVER SPRI	[M]
323	RML0520	TRAY LOCK	[M]
324	RMM0202	SLIDE PLATE 2	[M]
325	XTB3+10J	SCREW	[M]
326	RMR0334	FIXED PLATE	[M]
327	RMR0624-W2	CLAMPER	[M]
328	RMB0561	ASSIST LEVER SPRING	[M]
329	RMR1121-K	MECHA COVER	[M]
330	RMA1110-2	TRAY ANGLE	[M]
331	RMR1122-H1	TRAY BASE	[M]
332	RMM0204	CARRIER	[M]
333	RMM0303	DRIVE RACK	[M]
334	RDG0432	SPEED UP GEAR	[M]
335	RML0524	SLIDE LOCK	[M]
336	RML0523	CARRIER LOCK	[M]
337	RME0260-1	SLIDE LOCK SPRING	[M]
338	RMR1123-H	TRAY	[M]
339	RXQ0595	MOTOR SUB ASS'Y	[M]
341	RSJ0003	SOLENOLD ASS'Y	[M]
343	RMA1106	UPPER PLATE	[M]
344	RML0519	8CD LEVER	[M]
345	RFKNAAK27GCS	MECHA BASE ASS'Y	[M]
346	RML0522	TURNING STOPPER	[M]
347	RMQ0745	LOWER SPINDLE	[M]
348	RMQ0746	UP/DOWN BASE	[M]
349	RMB0550	LOWER SPINDLE SPRING	[M]
350	RMQ0747	UPPER HOOK	[M]
351	RME0263	CLICK SPRING	[M]
352	RMQ0743	SPINDLE SHAFT	[M]
353	RMB0552	CUSHION SPRING	[M]
354	RDG0430	RELAY GEAR 'A'	[M]
355	RDG0431	RELAY GEAR 'B'	[M]
356	RME0262	DISK LEVER SP.	[M]
357	RMA1105	SUPPORT PLATE	[M]
358	RAE0152Z-3	TRAVERSE	[M]
358-1	SHGD113-1	FLOATING CUSHION	[M]
358-2	SNSD38	TRV MOTOR ASS'Y SCRE	[M]
359	RME0142	FLOATING SPRING A	[M]
360	RME0109	FLOATING SPRING B	[M]
361	RMR1124-K1	TRAVERSE CHASSIS	[M]
362	RMS0632	TRAVERSE PIN	[M]
363	XTN2+6G	SCREW	[M]
364	RXQ0304-1	NUT PLATE ASS'Y	[M]
365	RXQ0339	TRAVERSE MOTOR ASS'Y	[M]
366	XQN17+CG5	NUT PLATE ASS'Y	[M]
369	RMX0141	PUSH SPACER	[M]
370	RMQ0749	UPPER SPINDLE	[M]
371	RHM0001	MAGNET	[M]
372	RMX0140	DISC SPACER	[M]
373	RME0261	FRONT LOCK SPRING	[M]
374	RMQ0742	SPINDLE BASE	[M]

18.3. Cabinet

18.3.1. Cabinet Parts Location

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S501
(VOLTAGE SELECTOR P.C.B)
(SUB-TRANSFORMER P.C.B)
JK500
CN500
T502
40
62
56
58
55
61
37
63
JK501
JK502
JK503
E500
CP504
CP505
57
4
(POWER PC.B)
CP503
2
CP201
JK201
CN1
JK202
(MAIN P.C.B)
CN702A
JK204
CN603A
CN506
CN503
CN504
39
35
CN100
W502
36
53
H506/W506
CN505
54
(STABILIZER P.C.B)
32
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43
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33
34
CN501
CN502
W500
(TRANSFORMER P.C.B)

18.3.2. Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	REE0964	FFC (PANEL TO MAIN)	[M]
2	REE0965	19P FFC WIRE	[M]
3	REEX0055	14P FFC WIRE	[M]
4	RAN0004MM-1	TUNER UNIT	[M]
5	RGP0784A-S	FRONT PANEL	[M]
6	RGU1847-S	RANDOM BUTTON	[M]
7	RGU1855-S	DEMO BUTTON	[M]
8	RGU1849-Q	S. WOOFER BUTTOM	[M]
9	RGU1854A-S	AI BUTTON	[M]
10	RGU1851-S	CONTROL BUTTON	[M]
11	RGL0487-Q	LIGHTING CHIP	[M]
12	RGU1845-S	POWER BUTTON	[M]
13	RGK1234-K	EQ SHEET	[M]
14	RGL0489-Q	CLOCK LIGHT	[M]
15	RGU1853-S	CLOCK BUTTON	[M]
16	RGU1852-S	DECK BUTTON	[M]
17	RKF0585-K	CASS. HOLDER (L)	[M]
18	RKF0586-K	CASS. HOLDER (R)	[M]
19	RKF0604-S	CASSETTE LID (L)	[M]
20	RKF0605-S	CASSETTE LID (R)	[M]
21	RKW0601-Q	CASSETTE WINODW (L)	[M]
22	RKW0602-Q	CASSETTE WINDOW (R)	[M]
23	RXG0049	DAMPER GEAR UNIT	[M]
24	RMB0474	CASS OPEN SPRING	[M]
25	RKW0603-V	FL WINDOW	[M]
26	RUS757ZAA	CASSETTE HALF SPRING	[M]
27	RGK1233-Q	JOG ORNAMENT 1	[M]
28	RGK1240-Q	JOG ORNAMENT 2	[M]
29	RGK1238-S	JOG SHEET	[M]
30	RGU1848-Q	FUNCTION BUTTON	[M]
31	RYQ0289-S	JOY UNIT	[M]
32	RMKX0036A	BOTTOM CHASSIS	[M]
33	RMKX0038A	CD HCASSIS	[M]
34	SHE187-4	SPACER (TRANS)	[M]
35	RMC0399	REGULATOR CLAUMPER	[M]
36	RMN0578	REGULATOR PWB HOLDER	[M]
37	REM0072-3	FAN	[M]
38	RGR0297B-A	REAR PANEL	[M]
39	RMNX0019	PCB SPACER	[M]
40	RMNX0029B-K1	SUB-TRANS HOLDER	[M]
41	RKMX0045C-S	TOP CABINET (BENT)	[M]
42	RYQ0290-S	JOG CYLINDER UNIT	[M]
43	RGK1232-S	CD LID	[M]
44	RGW0330A-S	VOLUME KNOB	[M]
45	RGU1850-Q	DPL BUTTON	[M]
46	RGU1846-S	DISC BUTTON	[M]
47	RGL0486-Q	DISC LIGHTING CHIP	[M]
48	RGB0113-N	PANA BADGE	[M]
49	RHD30002-H	SCREW	[M]
50	RMN0576-1	FL HOLDER	[M]
52	RMN0577	JOG CYLINDER BASE	[M]
53	RSC0556	REGULATOR SHIELD	[M]
54	RKA0059-K	LEG RUBBER	[M]
55	RXXX0018	HEAT SINK UNIT	[M]
56	SHR301	WIRE TIE	[M]
57	XTW3+15T	SCREW	[M]
58	XTB3+10JFZ	SCREW	[M]
59	XTBS3+8JFZ1	SCREW	[M]
60	XTBS26+10J	SCREW	[M]
61	XTB3+20J	SCREW	[M]
62	XTW3+12T	SCREW	[M]
63	XTB3+10J	SCREW	[M]
64	RGW0341-S	MIC KNOB	[M]

18.4. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		P.C.B.	
	REP2578A-N	PCB ASS'Y	[M] (RTL)
	REP2934B	PANEL BLOCK	[M] (RTL)
	REP2935B	MAIN BLOCK	[M] (RTL)
	REP2936B	POWER BLOCK	[M] (RTL)
	REP2937B	AC TRANS BLOCK	[M] (RTL)
	REPX0108	R/P PCB UNIT	[M] (RTL)
	REPX0108A	P/B PCB UNIT	[M] (RTL)
	REPX0169J	DECK PCB BLOCK	[M] (RTL)
	REPX0192A	CD SERVO PCB	[M] (RTL)
		INTEGRATED CIRCUITS	
IC1	TA7291F	IC DRIVE	[M]
IC201	NJU7313AMT2	IC	[M]
IC202	M5218AFPE3	IC	[M]
IC203	M5218AF	IC BUFFER AMP	[M]
IC301	M5228FPE1	IC QUAD OP AMP	[M]
IC302	M5218AFPE3	IC	[M]
IC303	BU4066BCF-E2	IC ANALOG SW	[M]
IC401	M38037M8108F	IC DSP CON	[M]
IC451	M38503M4254F	IC MECHA CON	[M]
IC453	TC74HCT7007A	IC 3V-5V LEVEL SHIFT	[M]
IC501	RSN311W64A-P	IC HIC	[M] ⚠
IC502	RSN35H1	IC HIC	[M] ⚠
IC503	STK470-050	IC HIC	[M] ⚠
IC601	M38199MF210F	IC MICON	[M]
IC602	M62457FPE1	IC SPEANA	[M]
IC603	BU2090AF-E2	IC I/O EXPANDER	[M]
IC604	BU2090AF-E2	IC I/O EXPANDER	[M]
IC605	TA2011S	IC MIC AMP	[M]
IC701	AN8839NSBE2	IC RF HEAD AMP	[M]
IC702	MN662790RSC	IC LSI	[M]
IC703	AN8739SBE2	IC 4CH DRIVER	[M]
IC801	TC9496F-012A	IC DSP LSI	[M]
IC951	ON2180RLC1	IC PHOTO INTERUPTOR	[M]
IC971	ON2180RLC1	IC PHOTO INTERUPTOR	[M]
IC1101	M51167AFP-TB	IC R/P	[M]
IC1102	BA7755A	IC SW	[M]
IC1105	BU2090AF-E2	IC I/O EXPANDER	[M]
		TRANSISTORS	
Q1	RVTDTC143EST	TRANSISTOR	[M]
Q201	IMX9T110	TRANSISTOR	[M]
Q202	2SA1037AKSTX	TRANSISTOR	[M]
Q203	2SA1037AKSTX	TRANSISTOR	[M]
Q204	IMX9T110	TRANSISTOR	[M]
Q301	IMX9T110	TRANSISTOR	[M]
Q302	IMX9T110	TRANSISTOR	[M]
Q305	DTC114YKA146	TRANSISTOR	[M]
Q306	2SA1037AKSTX	TRANSISTOR	[M]
Q307	2SD2144STA	TRANSISTOR	[M]
Q351	KTA12710YTA	TRANSISTOR	[M]
Q352	2SC2412KT96R	TRANSISTOR	[M]
Q353	2SC2412KT96R	TRANSISTOR	[M]
Q354	2SC2412KT96R	TRANSISTOR	[M]
Q373	2SC2412KT96R	TRANSISTOR	[M]
Q374	DTC114TKA146	TRANSISTOR	[M]
Q375	2SA1037AKSTX	TRANSISTOR	[M]
Q381	2SB1417PQTA	TRANSISTOR	[M] ⚠
Q382	2SC2412KT96R	TRANSISTOR	[M] ⚠
Q383	2SB621ARSTA	TRANSISTOR	[M] ⚠

Ref No..	Part No.	Part Name & Description	Remarks
Q384			
Q385	2SC2412KT96R	TRANSISTOR	[M] ⚠
Q451	DTA114EKA146	TRANSISTOR	[M]
Q452	2SB621ARSTA	TRANSISTOR	[M]
Q501	DTC114YKA146	TRANSISTOR	[M]
Q502	KTC3199GRTA	TRANSISTOR	[M]
Q503	KTC3199GRTA	TRANSISTOR	[M]
Q504	KTC3199GRTA	TRANSISTOR	[M]
Q505	KTC3199GRTA	TRANSISTOR	[M]
Q506	KTC3199GRTA	TRANSISTOR	[M]
Q576	KRA102MTA	TRANSISTOR	[M]
Q577	2SC3940AQSTA	TRANSISTOR	[M]
Q578	KRA102MTA	TRANSISTOR	[M]
Q580	KRC102MTA	TRANSISTOR	[M]
Q591	2SB621ARSTA	TRANSISTOR	[M] ⚠
Q592	KTC3199GRTA	TRANSISTOR	[M]
Q593	2SC3940AQSTA	TRANSISTOR	[M] ⚠
Q594	KTC3199GRTA	TRANSISTOR	[M] ⚠
Q601	KRC102MTA	TRANSISTOR	[M]
Q602	RVTDTC124EST	TRANSISTOR	[M]
Q603	KRC102MTA	TRANSISTOR	[M]
Q608	KRC102MTA	TRANSISTOR	[M]
Q609	2SB621ARSTA	TRANSISTOR	[M]
Q610	KRC102MTA	TRANSISTOR	[M]
Q617	2SA933SSTA	TRANSISTOR	[M]
Q701	KTC3199GRTA	TRANSISTOR	[M]
Q801	2SA1037AKSTX	TRANSISTOR	[M]
Q802	IMX9T110	TRANSISTOR	[M]
Q803	2SD2114K1V	TRANSISTOR	[M]
Q804	IMX9T110	TRANSISTOR	[M]
Q1101	2SD2114K1V	TRANSISTOR	[M]
Q1102	2SJ498CDTA	TRANSISTOR	[M]
Q1103	2SJ498CDTA	TRANSISTOR	[M]
Q1104	2SJ498CDTA	TRANSISTOR	[M]
Q1107	2SJ498CDTA	TRANSISTOR	[M]
Q1108	DTC144TKA146	TRANSISTOR	[M]
Q1115	DTC144TKA146	TRANSISTOR	[M]
Q1116	2SD2114K1V	TRANSISTOR	[M]
Q1118	2SD2114K1V	TRANSISTOR	[M]
Q1119	2SC2412KT96R	TRANSISTOR	[M]
Q1120	2SC2412KT96R	TRANSISTOR	[M]
Q1121	2SC2412KT96R	TRANSISTOR	[M]
Q1151	2SC2412KT96R	TRANSISTOR	[M]
Q1152	DTC144TKA146	TRANSISTOR	[M]
Q1153	DTC144TKA146	TRANSISTOR	[M]
Q1154	2SC2412KT96R	TRANSISTOR	[M]
Q1171	2SC2412KT96R	TRANSISTOR	[M]
Q1173	2SD1302STA	TRANSISTOR	[M]
Q1174	DTC144TKA146	TRANSISTOR	[M]
Q1175	2SC2412KT96R	TRANSISTOR	[M]
Q1176	2SC2002KTA	TRANSISTOR	[M]
Q1179	2SC2002KTA	TRANSISTOR	[M]
Q1203	2SC2412KT96R	TRANSISTOR	[M]
Q1206	2SD965RTA	TRANSISTOR	[M]
Q1207	2SB621RTA	TRANSISTOR	[M]
Q1208	2SB621RTA	TRANSISTOR	[M]
Q1209	DTC114TKA146	TRANSISTOR	[M]
Q1218	DTC114TKA146	TRANSISTOR	[M]
Q1220	DTA114EKA146	TRANSISTOR	[M]
	DTA143XKA146	TRANSISTOR	[M]
		DIODES	
D1			
D2	GP1S94	DIODE	[M]
D201	MTZJ4R7BTA	DIODE	[M]
D202	UDZSTE175R1B	DIODE	[M]
D203	1SS355TE17	DIODE	[M]
D351	RL1N4003N02	DIODE	[M]
D371	DAP202KT146	DIODE	[M]
D373	DAP202KT146	DIODE	[M]
D381	1SS355TE17	DIODE	[M]
D383	DA204KT146	DIODE	[M]
D385	DA204KT146	DIODE	[M]
	RL1N4003N02	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D386	UDZSTE175R1B	DIODE	[M] ⚠
D451	RL1N4003N02	DIODE	[M]
D453	RL1N4003N02	DIODE	[M]
D454	RL1N4003N02	DIODE	[M]
D456	RL1N4003N02	DIODE	[M]
D500	RVD1SS133TA	DIODE	[M]
D501	RK306LFU1	DIODE	[M]
D502	RK306LFU1	DIODE	[M]
D503	RVD1SS133TA	DIODE	[M]
D505	MTZJ16ATA	DIODE	[M]
D506	RVD1SS133TA	DIODE	[M]
D507	RVD1SS133TA	DIODE	[M]
D510	1D3E	DIODE	[M]
D551	1D3E	DIODE	[M] ⚠
D552	1D3E	DIODE	[M] ⚠
D553	1D3E	DIODE	[M] ⚠
D554	1D3E	DIODE	[M] ⚠
D561	1N5402BM21	DIODE	[M] ⚠
D562	1N5402BM21	DIODE	[M] ⚠
D563	1N5402BM21	DIODE	[M] ⚠
D564	1N5402BM21	DIODE	[M] ⚠
D565	1N5402BM21	DIODE	[M] ⚠
D566	1N5402BM21	DIODE	[M] ⚠
D567	1N5402BM21	DIODE	[M] ⚠
D568	1N5402BM21	DIODE	[M] ⚠
D569	1D3E	DIODE	[M] ⚠
D570	1D3E	DIODE	[M] ⚠
D571	RVD1SS133TA	DIODE	[M]
D572	1D3E	DIODE	[M] ⚠
D573	RVD1SS133TA	DIODE	[M]
D576	MTZJ3R3BTA	DIODE	[M] ⚠
D579	MTZJ9R1BTA	DIODE	[M] ⚠
D580	MTZJ18ATA	DIODE	[M] ⚠
D581	1D3E	DIODE	[M] ⚠
D582	1D3E	DIODE	[M] ⚠
D587	MTZJ30BTA	DIODE	[M] ⚠
D591	1D3E	DIODE	[M] ⚠
D592	1D3E	DIODE	[M] ⚠
D594	1D3E	DIODE	[M]
D595	MTZJ7R5ATA	DIODE	[M] ⚠
D597	RVD1SS133TA	DIODE	[M]
D598	1D3E	DIODE	[M]
D599	1SS291TA	DIODE	[M]
D601	LNJ201LPQJA	DIODE	[M]
D602	LNJ301MPUJAD	DIODE	[M]
D603	LNJ301MPUJAD	DIODE	[M]
D604	LNJ301MPUJAD	DIODE	[M]
D605	LNJ301MPUJAD	DIODE	[M]
D606	LNJ301MPUJAD	DIODE	[M]
D607	SLR325DCT31	DIODE	[M]
D615	SLR325MCT31W	DIODE	[M]
D616	SLR325MCT31W	DIODE	[M]
D617	SLR325MCT31W	DIODE	[M]
D618	SLR325MCT31W	DIODE	[M]
D619	SLR325MCT31W	DIODE	[M]
D620	LNJ801TPSJAD	DIODE	[M]
D622	LNJ301MPUJAD	DIODE	[M]
D623	LNJ301MPUJAD	DIODE	[M]
D625	SLR325DCT31	DIODE	[M]
D626	SLR325DCT31	DIODE	[M]
D627	SLR325DCT31	DIODE	[M]
D628	SLR325DCT31	DIODE	[M]
D629	SLR325DCT31	DIODE	[M]
D630	LNJ301MPUJAD	DIODE	[M]
D631	SLR325DCT31	DIODE	[M]
D632	LNJ301MPUJAD	DIODE	[M]
D637	SLR325MCT31W	DIODE	[M]
D640	MA723TA	DIODE	[M]
D651	RVD1SS133TA	DIODE	[M]
D652	1SS291TA	DIODE	[M]
D653	1SS291TA	DIODE	[M]
D654	RVD1SS133TA	DIODE	[M]
D656	RVD1SS133TA	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D658	MTZJ4R7BTA	DIODE	[M] ⚠
D665	RVD1SS133TA	DIODE	[M]
D666	RVD1SS133TA	DIODE	[M]
D668	RVD1SS133TA	DIODE	[M]
D669	RVD1SS133TA	DIODE	[M]
D671	RVD1SS133TA	DIODE	[M]
D951	MA165TA	DIODE	[M]
D971	MA165TA	DIODE	[M]
D1171	MA111TX	DIODE	[M]
D1172	MA8047MTX	DIODE	[M]
D1173	MA111TX	DIODE	[M]
D1174	MA8036HTX	DIODE	[M]
D1175	MA111TX	DIODE	[M]
D1201	MA111TX	DIODE	[M]
D1202	MA111TX	DIODE	[M]
		VARIABLE RESISTORS	
VR601	EVEKE2F3024B	VR VOL. JOG	[M]
VR602	EVQVXD00112B	VR A1 JOG VOL	[M]
VR603	EVUF2AF30B14	VR MIC	[M]
		SWITCHES	
S501	RSR4B007S-Q	VOLT ADJ SWITCH	[M] ⚠
S601	EVQ21405R	SW POWER	[M]
S602	EVQ21405R	SW ECO	[M]
S603	EVQ21405R	SW CD	[M]
S604	EVQ21405R	SW TUNER	[M]
S605	EVQ21405R	SW TAPE	[M]
S606	EVQ21405R	SW AUX	[M]
S607	EVQ21405R	SW 6CH	[M]
S608	EVQ21405R	SW TIMER/REC	[M]
S609	EVQ21405R	SW CLOCK/TIMER	[M]
S611	EVQ21405R	SW RANDOM	[M]
S612	EVQ11G07K	SW 3D EQ RIGHT	[M]
S613	EVQ21405R	SW DISPLAY/DEMO	[M]
S614	EVQ21405R	SW S.WOOFER	[M]
S615	EVQ21405R	SW 3D AI EQ	[M]
S616	EVQ21405R	SW KARAOKE EFFECT	[M]
S617	EVQ21405R	SW KARAOKE	[M]
S618	EVQ11G07K	SW 3D AI EQ LEFT	[M]
S619	EVQ11G07K	SW 3D AI EQ UP	[M]
S620	EVQ11G07K	SW 3D AI EQ DOWN	[M]
S621	EVQ21405R	SW CD MANAGER	[M]
S622	EVQ11G05R	SW DISC 1	[M]
S623	EVQ11G05R	SW OPEN 1	[M]
S624	EVQ11G05R	SW DISC 2	[M]
S625	EVQ11G05R	SW OPEN 2	[M]
S626	EVQ11G05R	SW DISC 3	[M]
S627	EVQ11G05R	SW OPEN 3	[M]
S628	EVQ11G05R	SW DISC 4	[M]
S629	EVQ11G05R	SW OPEN 4	[M]
S630	EVQ11G05R	SW DISC 5	[M]
S631	EVQ11G05R	SW OPEN 5	[M]
S640	EVQ21405R	SW FF/SKIP	[M]
S641	EVQ21405R	SW PAUSE/PLAY	[M]
S642	EVQ21405R	SW STOP	[M]
S643	EVQ21405R	SW REV	[M]
S644	EVQ21405R	SW REW/SKIP	[M]
S645	EVQ21405R	SW LOW CH	[M]
S646	EVQ21405R	SW MID CH	[M]
S647	EVQ21405R	SW HI CH	[M]
S648	EVQ21405R	SW TRI CONT.	[M]
S649	EVQ21405R	SW SET	[M]
S651	EVQ21405R	SW DECK 2 OPEN	[M]
S652	EVQ21405R	SW REV MODE	[M]
S653	EVQ21405R	SW REC STOP	[M]
S655	EVQ21405R	SW TAPE EDIT	[M]
S656	EVQ21405R	SW DECK 1 OPEN	[M]
S701	RSH1A043-U	SW REST	[M]
S951	RSH1A018-3U	LEAF SWITCH	[M]
S952	RSH1A019-2U	SW LEAF	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
S953	RSH1A019-2U	SW LEAF	[M]
S971	RSH1A018-3U	LEAF SWITCH	[M]
S972	RSH1A019-2U	SW LEAF	[M]
S973	RSH1A019-2U	SW LEAF	[M]
S974	RSH1A019-2U	SW LEAF	[M]
S975	RSH1A019-2U	SW LEAF	[M]
SW1	RSH1A032-U	SW PUSH	[M]
SW2	RSH1A032-U	SW PUSH	[M]
SW3	RSH1A005-1U	SW	[M]
SW4	RSH1A91ZA-A	SW CD	[M]
SW5	RSP1A017-A	SW LOCK	[M]
		CONNECTORS	
CN1	RJS1A9414	FF CONNECTOR	[M]
CN1	RJS1A9414-1	14P CONNECTOR	[M]
CN100	RJS1A5210	10P WIRE HOLDER	[M]
CN351	RJP2G4YA	CONNECTOR	[M]
CN500	RJT029W03V-1	CONNECTOR	[M]
CN501	RJP6G4YA	CONNECTOR	[M]
CN502	RJP12G4YA	CONNECTOR	[M]
CN503	RJU057G10	10P P2 MQ CONNECTOR	[M]
CN504	RJU057G10	10P P2 MQ CONNECTOR	[M]
CN505	RJU057G12	12P P2 MQ CONNECTOR	[M]
CN506	RJP10G4YA	10P CONNECTOR	[M]
CN601	RJS2A3330	30P FFC CONNECTOR	[M]
CN602A	RJT066H10F	10P B-B PLUG	[M]
CN602B	RJU066H10M	10 B-B	[M]
CN603A	RJS2A3330	30P FFC CONNECTOR	[M]
CN701	RJS2A6016	16P FFC CONNECTOR	[M]
CN702	RJS1A6719-1Q	19P FFC CONNECTOR	[M]
CN702A	RJS1A9419-1	19P CONECTOR	[M]
CN1201	RJS8T7ZA	8P MOLEX	[M]
CP201	RJT100W11	11P CONNECTOR	[M]
CP503	RJT057G10	10P P2 MQ CONNECTOR	[M]
CP504	RJT057G10	10P P2 MQ CONNECTOR	[M]
CP505	RJT057G12	12P P2 MQ CONNECTOR	[M]
CP1101	RJT071K09A	9P B/B CONNECTOR	[M]
CP1102	RJT071K09A	9P B/B CONNECTOR	[M]
CS951	RJU071H09M1	CONNECTOR	[M]
CS971	RJU071H09M1	CONNECTOR	[M]
CS1101	RJS1A6805-J	5P CONNECTOR SOCKET	[M]
CS1102	RJS1A6805-J	5P CONNECTOR SOCKET	[M]
		COILS & TRANSFORMERS	
L401	RLQB100JTD-D	INDUCTOR	[M]
L451	RLQB100JTD-D	INDUCTOR	[M]
L452	RLQB100JTD-D	INDUCTOR	[M]
L601	RLQA3R3JT1-Y	AXIAL COIL	[M]
L602	RLQA101JT1-Y	AXIAL COIL	[M]
L604	RLQA101JT1-Y	AXIAL COIL	[M]
L605	RLQA100JT1-Y	AXIAL COIL	[M]
L606	RLQA101JT1-Y	AXIAL COIL	[M]
L607	RLQA101JT1-Y	AXIAL COIL	[M]
L608	RLQA100JT1-Y	AXIAL COIL	[M]
L609	RLQA100JT1-Y	AXIAL COIL	[M]
L610	RLQA100JT1-Y	AXIAL COIL	[M]
L611	RLQA101JT1-Y	AXIAL COIL	[M]
L801	RLBN102V-Y	CHIP INDUCTOR	[M]
L803	RLBN102V-Y	CHIP INDUCTOR	[M]
L804	RLBN102V-Y	CHIP INDUCTOR	[M]
L805	RLL500050T-Y	RF CHOKE COIL	[M]
L806	RLBN102V-Y	CHIP INDUCTOR	[M]
L807	RLQB100JTD-D	INDUCTOR	[M]
L808	RLQB100JTD-D	INDUCTOR	[M]
L809	RLBN102V-Y	CHIP INDUCTOR	[M]
L810	RLQB100JTD-D	INDUCTOR	[M]
L811	RLBN102V-Y	CHIP INDUCTOR	[M]
L1201	RL08C002M-T	BIAS OSC COIL	[M]
L1202	RLQZB470KT-D	RF CHOKE COIL	[M]
T501	RTP2N3E011	TRANSFORMER	[M] ⚠
T502	RTP1I3E002-V	BACK UP TRANSFORMER	[M] ⚠

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Ref. No.	Part No.	Part Name & Description	Remarks
		COMPONENT COMBINATION	
Z501	ERZV10V511CS	ZNR	[M] ⚠
Z601	RCDGP1U28MD	REMOTE SENSOR	[M]
Z971	EXBF7L355SYV	RADA RESISTOR	[M]
Z1101	EXBF7L355SYV	RADA RESISTOR	[M]
		RELAY	
RLY501	RSY0037M-C	RELAY	[M] ⚠
RLY502	RSY0040M-0	PRIMARY RELAY	[M] ⚠
RLY504	RSY0048M-0	RELAY	[M] ⚠
RLY505	RSY0017M-0	RELAY	[M] ⚠
		OSCILLATORS	
X401	RSXY8M00D01T	CERAMIC RESONATOR	[M]
X451	RSXY8M00D01T	CERAMIC RESONATOR	[M]
X601	RSXD32K7S02	32.768HKZ X'TAL	[M]
X602	RSXZ8M00D01T	CERAMIC RESONATOR	[M]
X701	RSXZ16M9M01T	CERAMIC OSC	[M]
X801	RSXZ36M8M01T	36.86 MHZ RESONATOR	[M]
		DISPLAY TUBE	
FL601	RSL0296-F	FL	[M]
		FUSES	
F1	XBA2C40TB0	FUSE	[M] ⚠
F2	XBA2C20TB0	FUSE	[M] ⚠
		FUSE HOLDERS	
FC501	EYF52BC	FUSE HOLDER	[M]
FC502	EYF52BC	FUSE HOLDER	[M]
FC503	EYF52BC	FUSE HOLDER	[M]
FC504	EYF52BC	FUSE HOLDER	[M]
		HOLDERS	
H502	RJS1A5512	12P WIRE HOLDER	[M]
H506	RJS1A5510	WIRE HOLDER	[M]
H601	RMR0317	8P CABLE HOLDER	[M]
H602	RJS1A5506	6P WIRE HOLDER	[M]
H603A	RMR0317	8P CABLE HOLDER	[M]
H603B	RMR0317	8P CABLE HOLDER	[M]
H1100	RMR0319	10P CABLE HOLDER	[M]
		JACKS	
JK201	RJH2405N	JK 4P RCA	[M]
JK202	RJH2603N-2	JK 6P RCA PIN	[M]
JK204	RJH2110N-2	JK SUB-WOOFER	[M]
JK500	SJS9236-1	JK SOCKET	[M] ⚠
JK501	RJH5603	JK SPEAKER TERMINAL	[M]
JK502	RJH5603	JK SPEAKER TERMINAL	[M]
JK503	RJH2307N	JK PIN	[M]
JK601	RJJ37TK07-X	JK HP/MIC	[M]
JK602	RJJ37TK07-X	JK HP/MIC	[M]
JK603	RJJ37TK07-X	JK HP/MIC	[M]
		WIRES	
W1	REZ1023-1	4P WIRE	[M]
W2	REZ1024	3P WIRE	[M]
W5	REEX0057	WIRE (ORANGE)	[M]
W6	REEX0058	WIRE (GREY)	[M]
W7	REE0972	WIRE (VIOLET)	[M]
W8	REEX0086	WIRE (RED)	[M]
W9	REE0973	WIRE (BROWN)	[M]
W10	REE0974	WIRE (BLACK/ORANGE)	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W500	REXX0206	STANDBY BY WIRE	[M]
W502	REX1003	12P WIRE UNIT	[M]
W506	REX1004	10P WIRE UNIT	[M]
W601	RWJ0208155RX	8P PANEL TO DECK	[M]
W602	REX0955	6P WIRE	[M]
W603	RWJ1108100XX	WIRE	[M]
W1100	RWJ8010160RX	10P WIRE	[M]
W1200	RWJ0102065CK	WIRE	[M]
		EARTH TERMINAL	
E500	SNE1004-2	EARTH TERMINAL	[M]
		JUMPER PLATE	
PL1	RJR0199	JUMPER PLATE	[M]
		RESISTORS	
R1	ERDS2TJ102T	1K 1/4W	[M]
R201	ERJ6GEYJ123V	12K 1/10W	[M]
R202	ERJ6GEYJ123V	12K 1/10W	[M]
R203	ERJ6GEYJ332V	3.3K 1/10W	[M]
R204	ERJ6GEYJ332V	3.3K 1/10W	[M]
R205	ERJ6GEYJ123V	12K 1/10W	[M]
R206	ERJ6GEYJ123V	12K 1/10W	[M]
R207	ERJ6GEYJ332V	3.3K 1/10W	[M]
R208	ERJ6GEYJ332V	3.3K 1/10W	[M]
R213	ERJ6GEYJ183V	18K 1/10W	[M]
R214	ERJ6GEYJ183V	18K 1/10W	[M]
R215	ERJ6GEYJ332V	3.3K 1/10W	[M]
R216	ERJ6GEYJ332V	3.3K 1/10W	[M]
R217	ERJ6GEYJ822V	8.2K 1/10W	[M]
R218	ERJ6GEYJ822V	8.2K 1/10W	[M]
R219	ERJ6GEYJ822V	8.2K 1/10W	[M]
R220	ERJ6GEYJ822V	8.2K 1/10W	[M]
R221	ERJ6GEYJ562V	5.6K 1/10W	[M]
R222	ERJ6GEYJ822V	8.2K 1/10W	[M]
R223	ERJ6GEYJ103V	10K 1/10W	[M]
R224	ERJ6GEYJ123V	12K 1/10W	[M]
R225	ERJ6GEYJ333V	33K 1/10W	[M]
R226	ERJ6GEYJ333V	33K 1/10W	[M]
R227	ERJ6GEYJ272V	2.7K 1/10W	[M]
R228	ERJ6GEYJ272V	2.7K 1/10W	[M]
R229	ERJ6GEYJ472V	4.7K 1/10W	[M]
R230	ERJ6GEYJ472V	4.7K 1/10W	[M]
R231	ERJ6GEYJ472V	4.7K 1/10W	[M]
R232	ERJ6GEYJ472V	4.7K 1/10W	[M]
R233	ERJ6GEYJ472V	4.7K 1/10W	[M]
R234	ERJ6GEYJ472V	4.7K 1/10W	[M]
R235	ERJ6GEYJ221V	220 1/10W	[M]
R236	ERJ6GEYJ221V	220 1/10W	[M]
R237	ERJ6GEYJ104V	100K 1/10W	[M]
R238	ERJ6GEYJ104V	100K 1/10W	[M]
R239	ERJ6GEYJ222V	2.2K 1/10W	[M]
R240	ERJ6GEYJ222V	2.2K 1/10W	[M]
R241	ERJ6GEYJ563V	56K 1/10W	[M]
R242	ERJ6GEYJ563V	56K 1/10W	[M]
R243	ERJ6GEYJ123V	12K 1/10W	[M]
R244	ERJ6GEYJ123V	12K 1/10W	[M]
R245	ERJ6GEYJ103V	10K 1/10W	[M]
R246	ERJ6GEYJ103V	10K 1/10W	[M]
R247	ERJ6GEYJ152V	1.5K 1/10W	[M]
R248	ERJ6GEYJ152V	1.5K 1/10W	[M]
R249	ERJ6GEYJ471V	470 1/10W	[M]
R250	ERJ6GEYJ471V	470 1/10W	[M]
R251	ERJ6GEYJ100V	10 1/10W	[M]
R252	ERJ6GEYJ100V	10 1/10W	[M]
R253	ERJ6GEYJ274V	270K 1/10W	[M]
R254	ERJ6GEYJ274V	270K 1/10W	[M]
R255	ERJ6GEYJ154V	150K 1/10W	[M]
R256	ERJ6GEYJ102V	1K 1/10W	[M]
R257	ERJ6GEYJ102V	1K 1/10W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R258	ERJ6GEYJ102V	1K 1/10W	[M]
R259	ERJ6GEYJ103V	10K 1/10W	[M]
R260	ERJ6GEYJ103V	10K 1/10W	[M]
R263	ERJ6GEYJ223V	22K 1/10W	[M]
R264	ERJ6GEYJ223V	22K 1/10W	[M]
R265	ERJ6GEYJ102V	1K 1/10W	[M]
R266	ERJ6GEYJ102V	1K 1/10W	[M]
R267	ERJ6GEYJ332V	3.3K 1/10W	[M]
R268	ERJ6GEYJ332V	3.3K 1/10W	[M]
R269	ERJ6GEYJ683V	68K 1/10W	[M]
R270	ERJ6GEYJ683V	68K 1/10W	[M]
R271	ERJ6GEYJ390V	39 1/10W	[M]
R272	ERJ6GEYJ390V	39 1/10W	[M]
R273	ERJ6GEYJ390V	39 1/10W	[M]
R274	ERJ6GEYJ390V	39 1/10W	[M]
R275	ERJ6GEYJ561V	560 1/10W	[M]
R276	ERJ6GEYJ561V	560 1/10W	[M]
R277	ERJ6GEYJ123V	12K 1/10W	[M]
R278	ERJ6GEYJ332V	3.3K 1/10W	[M]
R279	ERJ6GEYJ272V	2.7K 1/10W	[M]
R280	ERJ6GEYJ102V	1K 1/10W	[M]
R281	ERJ6GEYJ103V	10K 1/10W	[M]
R282	ERJ6GEYJ223V	22K 1/10W	[M]
R283	ERJ6GEYJ103V	10K 1/10W	[M]
R286	ERJ6GEYJ223V	22K 1/10W	[M]
R290	ERJ6GEYJ223V	22K 1/10W	[M]
R301	ERJ6GEYJ683V	68K 1/10W	[M]
R302	ERJ6GEYJ683V	68K 1/10W	[M]
R303	ERJ6GEYJ102V	1K 1/10W	[M]
R304	ERJ6GEYJ102V	1K 1/10W	[M]
R305	ERJ6GEYJ563V	56K 1/10W	[M]
R306	ERJ6GEYJ563V	56K 1/10W	[M]
R307	ERJ6GEYJ102V	1K 1/10W	[M]
R308	ERJ6GEYJ102V	1K 1/10W	[M]
R309	ERJ6GEYJ222V	2.2K 1/10W	[M]
R310	ERJ6GEYJ182V	1.8K 1/10W	[M]
R311	ERJ6GEYJ184V	180K 1/10W	[M]
R312	ERJ6GEYJ333V	33K 1/10W	[M]
R313	ERJ6GEYJ102V	1K 1/10W	[M]
R314	ERJ6GEYJ102V	1K 1/10W	[M]
R315	ERJ6GEYJ563V	56K 1/10W	[M]
R316	ERJ6GEYJ563V	56K 1/10W	[M]
R317	ERJ6GEYJ102V	1K 1/10W	[M]
R318	ERJ6GEYJ102V	1K 1/10W	[M]
R319	ERJ6GEYJ103V	10K 1/10W	[M]
R320	ERJ6GEYJ822V	8.2K 1/10W	[M]
R321	ERJ6GEYJ223V	22K 1/10W	[M]
R322	ERJ6GEYJ223V	22K 1/10W	[M]
R323	ERJ6GEYJ153V	15K 1/10W	[M]
R324	ERJ6GEYJ393V	39K 1/10W	[M]
R325	ERJ6GEYJ102V	1K 1/10W	[M]
R326	ERJ6GEYJ563V	56K 1/10W	[M]
R327	ERJ6GEYJ272V	2.7K 1/10W	[M]
R328	ERJ6GEYJ394V	390K 1/10W	[M]
R329	ERJ6GEYJ473V	47K 1/10W	[M]
R330	ERJ6GEYJ471V	470 1/10W	[M]
R331	ERJ6GEYJ272V	2.7K 1/10W	[M]
R332	ERJ6GEYJ102V	1K 1/10W	[M]
R333	ERJ6GEYJ104V	100K 1/10W	[M]
R334	ERJ6GEYJ102V	1K 1/10W	[M]
R335	ERJ6GEYJ153V	15K 1/10W	[M]
R336	ERJ6GEYJ153V	15K 1/10W	[M]
R337	ERJ6GEYJ221V	220 1/10W	[M]
R338	ERJ6GEYJ332V	3.3K 1/10W	[M]
R339	ERJ6GEYJ104V	100K 1/10W	[M]
R340	ERJ6GEYJ222V	2.2K 1/10W	[M]
R351	ERJ6GEYJ103V	10K 1/10W	[M]
R352	ERJ6GEYJ563V	56K 1/10W	[M]
R353	ERJ6GEYJ472V	4.7K 1/10W	[M]
R354	ERJ6GEYJ824V	820K 1/10W	[M]
R355	ERJ6GEYJ562V	5.6K 1/10W	[M]
R356	ERJ6GEYJ101V	100 1/10W	[M]
R357	ERJ6GEYJ103V	10K 1/10W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R358	ERJ6GEYJ563V	56K 1/10W	[M]
R359	ERDS1FVJ180T	18 1/2W	[M] ⚠
R360	ERJ6GEYJ472V	4.7K 1/10W	[M]
R361	ERJ6GEYJ563V	56K 1/10W	[M]
R362	ERJ6GEYJ103V	10K 1/10W	[M]
R363	ERJ6GEYJ824V	820K 1/10W	[M]
R364	ERJ6GEYJ223V	22K 1/10W	[M]
R365	ERJ6GEYJ222V	2.2K 1/10W	[M]
R366	ERJ6GEYJ224V	220K 1/10W	[M]
R367	ERJ6GEYJ102V	1K 1/10W	[M]
R368	ERJ6GEYJ333V	33K 1/10W	[M]
R369	ERJ6GEYJ154V	150K 1/10W	[M]
R370	ERJ6GEYJ474V	470K 1/10W	[M]
R373	ERJ6GEYJ104V	100K 1/10W	[M]
R374	ERJ6GEYJ332V	3.3K 1/10W	[M]
R375	ERJ6GEYJ393V	39K 1/10W	[M]
R376	ERJ6GEYJ472V	4.7K 1/10W	[M]
R377	ERJ6GEYJ103V	10K 1/10W	[M]
R378	ERJ6GEYJ102V	1K 1/10W	[M]
R379	ERJ6GEYJ224V	220K 1/10W	[M]
R380	ERJ6GEYJ683V	68K 1/10W	[M]
R381	ERJ6GEYJ122V	1.2K 1/10W	[M]
R382	ERJ6GEYJ122V	1.2K 1/10W	[M]
R383	ERJ6GEYJ472V	4.7K 1/10W	[M]
R384	ERJ6GEYJ1R0V	1 1/10W	[M]
R385	ERJ6GEYJ472V	4.7K 1/10W	[M]
R386	ERJ6GEYJ472V	4.7K 1/10W	[M]
R387	ERJ6GEYJ1R0V	1 1/10W	[M]
R388	ERJ6GEYJ823V	82K 1/10W	[M]
R390	ERJ6GEYJ473V	47K 1/10W	[M]
R391	ERJ6GEYJ223V	22K 1/10W	[M]
R392	ERJ6GEYJ223V	22K 1/10W	[M]
R393	ERJ6GEYJ274V	270K 1/10W	[M]
R401	ERJ6GEYJ104V	100K 1/10W	[M]
R402	ERJ6GEYJ472V	4.7K 1/10W	[M]
R403	ERJ6GEYJ331V	330 1/10W	[M]
R404	ERJ6GEYJ103V	10K 1/10W	[M]
R406	ERJ6GEYJ103V	10K 1/10W	[M]
R407	ERJ6GEYJ681V	680 1/10W	[M]
R410	ERJ6GEYJ103V	10K 1/10W	[M]
R416	ERJ6GEYJ102V	1K 1/10W	[M]
R417	ERJ6GEYJ102V	1K 1/10W	[M]
R418	ERJ6GEYJ102V	1K 1/10W	[M]
R419	ERJ6GEYJ331V	330 1/10W	[M]
R420	ERJ6GEYJ102V	1K 1/10W	[M]
R421	ERJ6GEYJ103V	10K 1/10W	[M]
R422	ERJ6GEYJ102V	1K 1/10W	[M]
R424	ERJ6GEYJ103V	10K 1/10W	[M]
R425	ERJ6GEYJ102V	1K 1/10W	[M]
R426	ERJ6GEYJ102V	1K 1/10W	[M]
R427	ERJ6GEYJ102V	1K 1/10W	[M]
R428	ERJ6GEYJ472V	4.7K 1/10W	[M]
R430	ERJ6GEYJ104V	100K 1/10W	[M]
R431	ERJ6GEYJ102V	1K 1/10W	[M]
R432	ERJ6GEYJ152V	1.5K 1/10W	[M]
R436	ERJ6GEYJ472V	4.7K 1/10W	[M]
R437	ERJ6GEYJ272V	2.7K 1/10W	[M]
R438	ERJ6GEYJ682V	6.8K 1/10W	[M]
R439	ERJ6GEYJ104V	100K 1/10W	[M]
R440	ERJ6GEYJ103V	10K 1/10W	[M]
R441	ERJ6GEYJ103V	10K 1/10W	[M]
R442	ERJ6GEYJ102V	1K 1/10W	[M]
R443	ERJ6GEYJ102V	1K 1/10W	[M]
R444	ERJ6GEYJ102V	1K 1/10W	[M]
R446	ERJ6GEYJ103V	10K 1/10W	[M]
R451	ERJ6GEYJ102V	1K 1/10W	[M]
R452	ERJ6GEYJ103V	10K 1/10W	[M]
R453	ERJ6GEYJ104V	100K 1/10W	[M]
R454	ERJ6GEYJ472V	4.7K 1/10W	[M]
R455	ERJ6GEYJ103V	10K 1/10W	[M]
R456	ERJ6GEYJ222V	2.2K 1/10W	[M]
R457	ERJ6GEYJ222V	2.2K 1/10W	[M]
R458	ERJ6GEYJ272V	2.7K 1/10W	[M]

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Ref. No.	Part No.	Part Name & Description	Remarks
R459	ERJ6GEYJ272V	2.7K 1/10W	[M]
R460	ERJ6GEYJ272V	2.7K 1/10W	[M]
R462	ERJ6GEYJ103V	10K 1/10W	[M]
R463	ERJ6GEYJ681V	680 1/10W	[M]
R464	ERJ6GEYJ152V	1.5K 1/10W	[M]
R465	ERJ6GEYJ152V	1.5K 1/10W	[M]
R466	ERJ6GEYJ152V	1.5K 1/10W	[M]
R467	ERJ6GEYJ102V	1K 1/10W	[M]
R468	ERJ6GEYJ104V	100K 1/10W	[M]
R469	ERJ6GEYJ221V	220 1/10W	[M]
R470	ERJ6GEYJ152V	1.5K 1/10W	[M]
R471	ERJ6GEYJ102V	1K 1/10W	[M]
R472	ERJ6GEYJ103V	10K 1/10W	[M]
R473	ERJ6GEYJ102V	1K 1/10W	[M]
R474	ERJ6GEYJ102V	1K 1/10W	[M]
R475	ERJ6GEYJ221V	220 1/10W	[M]
R476	ERJ6GEYJ221V	220 1/10W	[M]
R477	ERJ6GEYJ221V	220 1/10W	[M]
R478	ERJ6GEYJ221V	220 1/10W	[M]
R479	ERJ6GEYJ221V	220 1/10W	[M]
R480	ERJ6GEYJ221V	220 1/10W	[M]
R481	ERJ6GEYJ472V	4.7K 1/10W	[M]
R482	ERJ6GEYJ472V	4.7K 1/10W	[M]
R483	ERJ6GEYJ472V	4.7K 1/10W	[M]
R484	ERJ6GEYJ473V	47K 1/10W	[M]
R485	ERJ6GEYJ472V	4.7K 1/10W	[M]
R486	ERJ6GEYJ472V	4.7K 1/10W	[M]
R487	ERJ6GEYJ103V	10K 1/10W	[M]
R488	ERJ6GEYJ221V	220 1/10W	[M]
R489	ERJ6GEYJ223V	22K 1/10W	[M]
R498	ERJ6GEYJ221V	220 1/10W	[M]
R499	ERJ6GEYJ221V	220 1/10W	[M]
R501	ERDS2TJ392T	3.9K 1/4W	[M]
R502	ERDS2TJ392T	3.9K 1/4W	[M]
R503	ERDS2TJ153T	15K 1/4W	[M]
R504	ERDS2TJ153T	15K 1/4W	[M]
R505	ERDS2TJ153T	15K 1/4W	[M]
R506	ERDS2TJ153T	15K 1/4W	[M]
R507	ERDS2TJ392T	3.9K 1/4W	[M]
R508	ERDS2TJ392T	3.9K 1/4W	[M]
R509	ERDS2TJ392T	3.9K 1/4W	[M]
R510	ERDS2TJ392T	3.9K 1/4W	[M]
R511	ERDS2TJ153T	15K 1/4W	[M]
R512	ERDS2TJ103T	10K 1/4W	[M]
R513	ERDS2TJ563T	56K 1/4W	[M]
R514	ERDS2TJ563T	56K 1/4W	[M]
R515	ERDS2TJ563T	56K 1/4W	[M]
R516	ERDS2TJ563T	56K 1/4W	[M]
R517	ERDS2TJ563T	56K 1/4W	[M]
R518	ERDS2TJ563T	56K 1/4W	[M]
R519	ERDS2TJ474T	470K 1/4W	[M]
R520	ERDS2TJ103T	10K 1/4W	[M]
R521	ERDS2TJ183T	18K 1/4W	[M]
R522	ERDS2TJ473T	47K 1/4W	[M]
R523	ERDS2TJ124T	120K 1/4W	[M]
R524	ERDS2TJ124T	120K 1/4W	[M]
R525	ERDS2TJ154T	150K 1/4W	[M]
R526	ERDS2TJ124T	120K 1/4W	[M]
R527	ERDS2TJ124T	120K 1/4W	[M]
R528	ERDS2TJ154T	150K 1/4W	[M]
R529	ERDS2TJ223T	22K 1/4W	[M]
R530	ERDS2TJ103T	10K 1/4W	[M]
R537	ERDS1FVJ100T	10 1/2W	[M] ⚠
R538	ERDS1FVJ100T	10 1/2W	[M] ⚠
R539	ERDS1FVJ100T	10 1/2W	[M] ⚠
R540	ERDS1FVJ100T	10 1/2W	[M] ⚠
R541	ERDS1FVJ100T	10 1/2W	[M] ⚠
R542	ERDS1FVJ100T	10 1/2W	[M] ⚠
R545	ERDS2TJ562T	5.6K 1/4W	[M]
R546	ERDS2TJ563T	56K 1/4W	[M]
R547	ERDS2TJ562T	5.6K 1/4W	[M]
R548	ERDS2TJ563T	56K 1/4W	[M]
R549	ERDS2TJ563T	56K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R550	ERDS2TJ563T	56K 1/4W	[M]
R551	ERDS2TJ334T	330K 1/4W	[M]
R552	ERDS2TJ223T	22K 1/4W	[M]
R553	ERDS2TJ103T	10K 1/4W	[M]
R554	ERDS1FVJ272T	2.7K 1/2W	[M] ⚠
R555	ERDS1FVJ272T	2.7K 1/2W	[M] ⚠
R556	ERDS1FVJ272T	2.7K 1/2W	[M] ⚠
R557	ERDS2TJ104T	100K 1/4W	[M]
R558	ERDS2TJ124T	120K 1/4W	[M]
R559	ERDS1FVJ100T	10 1/2W	[M] ⚠
R560	ERDS1FVJ100T	10 1/2W	[M] ⚠
R561	ERDS2TJ223T	22K 1/4W	[M]
R562	ERDS2TJ390T	39 1/4W	[M]
R563	ERDS2TJ181T	180 1/4W	[M]
R564	ERDS2TJ181T	180 1/4W	[M]
R565	ERDS2TJ390T	39 1/4W	[M]
R566	ERDS2TJ390T	39 1/4W	[M]
R567	ERDS2TJ2R2T	2.2 1/4W	[M]
R568	ERDS2TJ2R2T	2.2 1/4W	[M]
R570	ERD2FCVG390T	39 1/4W	[M]
R571	ERDS2TJ473T	47K 1/4W	[M]
R572	ERDS2TJ153T	15K 1/4W	[M]
R573	ERDS2TJ392T	3.9K 1/4W	[M]
R574	ERDS2TJ154T	150K 1/4W	[M]
R575	ERDS2TJ154T	150K 1/4W	[M]
R576	ERDS2TJ222T	2.2K 1/4W	[M]
R578	ERDS2TJ152T	1.5K 1/4W	[M]
R579	ERDS2TJ332T	3.3K 1/4W	[M]
R580	ERDS2TJ824T	820K 1/4W	[M]
R581	ERDS1FVJ472T	4.7K 1/2W	[M] ⚠
R582	ERDS1FVJ470T	47 1/2W	[M]
R583	ERDS1FVJ470T	47 1/2W	[M]
R584	ERDS2TJ152T	1.5K 1/4W	[M]
R585	ERDS2TJ122T	1.2K 1/4W	[M]
R586	ERDS2TJ152T	1.5K 1/4W	[M]
R587	ERDS2TJ103T	10K 1/4W	[M]
R588	ERDS2TJ472T	4.7K 1/4W	[M]
R589	ERDS2TJ151T	150 1/4W	[M]
R590	ERDS2TJ223T	22K 1/4W	[M]
R591	RSFMB40KT-L	FUSE PROTECTOR	[M] ⚠
R592	ERDS2TJ180T	18 1/4W	[M]
R593	ERDS2TJ103T	10K 1/4W	[M]
R594	ERDS2TJ103T	10K 1/4W	[M]
R595	ERDS2TJ332T	3.3K 1/4W	[M]
R596	ERDS2TJ824T	820K 1/4W	[M]
R597	ERDS2TJ182T	1.8K 1/4W	[M]
R599	ERDS2TJ180T	18 1/4W	[M]
R601	ERDS2TJ102T	1K 1/4W	[M]
R602	ERDS2TJ331T	330 1/4W	[M]
R603	ERDS2TJ331T	330 1/4W	[M]
R604	ERDS2TJ331T	330 1/4W	[M]
R605	ERDS2TJ331T	330 1/4W	[M]
R606	ERDS2TJ331T	330 1/4W	[M]
R607	ERDS2TJ391T	390 1/4W	[M]
R608	ERDS2TJ681T	680 1/4W	[M]
R609	ERDS2TJ473T	47K 1/4W	[M]
R610	ERDS2TJ102T	1K 1/4W	[M]
R611	ERDS2TJ102T	1K 1/4W	[M]
R612	ERDS2TJ101T	100 1/4W	[M]
R613	ERDS2TJ102T	1K 1/4W	[M]
R614	ERDS2TJ102T	1K 1/4W	[M]
R615	ERDS2TJ122T	1.2K 1/4W	[M]
R616	ERDS2TJ182T	1.8K 1/4W	[M]
R617	ERDS2TJ222T	2.2K 1/4W	[M]
R618	ERDS2TJ272T	2.7K 1/4W	[M]
R619	ERDS2TJ472T	4.7K 1/4W	[M]
R620	ERDS2TJ682T	6.8K 1/4W	[M]
R621	ERDS2TJ473T	47K 1/4W	[M]
R622	ERDS2TJ473T	47K 1/4W	[M]
R623	ERDS2TJ102T	1K 1/4W	[M]
R624	ERDS2TJ102T	1K 1/4W	[M]
R625	ERDS2TJ122T	1.2K 1/4W	[M]
R626	ERDS2TJ182T	1.8K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R627	ERDS2TJ222T	2.2K 1/4W	[M]
R628	ERDS2TJ272T	2.7K 1/4W	[M]
R629	ERDS2TJ473T	47K 1/4W	[M]
R630	ERDS2TJ473T	47K 1/4W	[M]
R632	ERDS2TJ472T	4.7K 1/4W	[M]
R633	ERDS2TJ682T	6.8K 1/4W	[M]
R636	ERDS2TJ152T	1.5K 1/4W	[M]
R637	ERDS2TJ223T	22K 1/4W	[M]
R638	ERDS2TJ101T	100 1/4W	[M]
R639	ERDS2TJ101T	100 1/4W	[M]
R640	ERDS2TJ101T	100 1/4W	[M]
R641	ERDS2TJ101T	100 1/4W	[M]
R642	ERDS2TJ101T	100 1/4W	[M]
R643	ERDS2TJ103T	10K 1/4W	[M]
R644	ERDS2TJ103T	10K 1/4W	[M]
R645	ERDS2TJ103T	10K 1/4W	[M]
R646	ERDS2TJ103T	10K 1/4W	[M]
R647	ERDS2TJ103T	10K 1/4W	[M]
R648	ERDS2TJ224T	220K 1/4W	[M]
R649	ERDS2TJ473T	47K 1/4W	[M]
R650	ERDS2TJ223T	22K 1/4W	[M]
R651	ERDS2TJ102T	1K 1/4W	[M]
R652	ERDS2TJ103T	10K 1/4W	[M]
R653	ERDS2TJ106T	10M 1/4W	[M]
R654	ERDS2TJ334T	330K 1/4W	[M]
R655	ERDS2TJ331T	330 1/4W	[M]
R656	ERDS2TJ223T	22K 1/4W	[M]
R657	ERDS2TJ473T	47K 1/4W	[M]
R671	ERDS2TJ104T	100K 1/4W	[M]
R672	ERDS2TJ104T	100K 1/4W	[M]
R673	ERDS2TJ104T	100K 1/4W	[M]
R674	ERDS2TJ104T	100K 1/4W	[M]
R675	ERDS2TJ104T	100K 1/4W	[M]
R676	ERDS2TJ104T	100K 1/4W	[M]
R677	ERDS2TJ104T	100K 1/4W	[M]
R678	ERDS2TJ104T	100K 1/4W	[M]
R679	ERDS2TJ104T	100K 1/4W	[M]
R680	ERDS2TJ223T	22K 1/4W	[M]
R681	ERDS2TJ103T	10K 1/4W	[M]
R682	ERDS2TJ103T	10K 1/4W	[M]
R683	ERDS2TJ103T	10K 1/4W	[M]
R684	ERDS2TJ103T	10K 1/4W	[M]
R685	ERDS2TJ104T	100K 1/4W	[M]
R686	ERDS2TJ104T	100K 1/4W	[M]
R687	ERDS2TJ104T	100K 1/4W	[M]
R688	ERDS2TJ680T	68 1/4W	[M]
R689	ERDS2TJ680T	68 1/4W	[M]
R690	ERDS2TJ474T	470K 1/4W	[M]
R691	ERDS2TJ472T	4.7K 1/4W	[M]
R693	ERDS2TJ103T	10K 1/4W	[M]
R694	ERDS2TJ104T	100K 1/4W	[M]
R695	ERDS2TJ223T	22K 1/4W	[M]
R696	ERDS2TJ473T	47K 1/4W	[M]
R698	ERDS2TJ223T	22K 1/4W	[M]
R699	ERDS2TJ102T	1K 1/4W	[M]
R701	ERJ6GEYJ4R7A	4.7 1/10W	[M]
R702	ERJ6GEYJ103A	10K 1/10W	[M]
R704	ERJ6GEYJ102A	1K 1/10W	[M]
R705	ERJ6GEYJ154A	150K 1/10W	[M]
R706	ERJ6GEYJ102A	1K 1/10W	[M]
R707	ERJ6GEYJ393V	39K 1/10W	[M]
R708	ERJ6GEYJ223A	22K 1/10W	[M]
R709	ERJ6GEYJ683A	68K 1/10W	[M]
R711	ERJ6GEYJ823A	82K 1/10W	[M]
R712	ERJ8GEYJ221A	220 1/8W	[M]
R714	ERJ6GEY0R00A	0 1/10W	[M]
R715	ERJ6GEYJ102A	1K 1/10W	[M]
R717	ERJ6GEYJ102A	1K 1/10W	[M]
R718	ERJ6GEYJ102A	1K 1/10W	[M]
R721	ERJ6GEYJ101A	100 1/10W	[M]
R723	ERJ6GEYJ682A	6.8K 1/10W	[M]
R724	ERJ6GEYJ183A	18K 1/10W	[M]
R725	ERJ6GEYJ391A	390 1/10W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R727	ERJ6GEYJ392A	3.9K 1/10W	[M]
R728	ERJ6GEYJ392A	3.9K 1/10W	[M]
R729	ERJ6GEYJ392A	3.9K 1/10W	[M]
R731	ERJ6GEYJ682A	6.8K 1/10W	[M]
R735	ERJ6GEYJ101A	100 1/10W	[M]
R736	ERJ6GEYJ101A	100 1/10W	[M]
R741	ERJ6GEYJ473A	47K 1/10W	[M]
R742	ERJ6GEYJ224A	220K 1/10W	[M]
R744	ERJ6GEYJ124A	120K 1/10W	[M]
R749	ERJ6GEYJ472A	4.7K 1/10W	[M]
R753	ERJ6GEYJ100V	10 1/10W	[M]
R801	ERJ6GEYJ102V	1K 1/10W	[M]
R802	ERJ6GEYJ102V	1K 1/10W	[M]
R803	ERJ6GEYJ393V	39K 1/10W	[M]
R804	ERJ6GEYJ183V	18K 1/10W	[M]
R805	ERJ6GEYJ102V	1K 1/10W	[M]
R806	ERJ6GEYJ222V	2.2K 1/10W	[M]
R807	ERJ6GEYJ103V	10K 1/10W	[M]
R808	ERJ6GEYJ103V	10K 1/10W	[M]
R809	ERJ6GEYJ103V	10K 1/10W	[M]
R810	ERJ6GEYJ560V	56 1/10W	[M]
R811	ERJ6GEYJ104V	100K 1/10W	[M]
R812	ERJ6GEYJ681V	680 1/10W	[M]
R813	ERJ6GEYJ271V	270 1/10W	[M]
R814	ERJ6GEYJ271V	270 1/10W	[M]
R815	ERJ6GEYJ223V	22K 1/10W	[M]
R816	ERJ6GEYJ105V	1M 1/10W	[M]
R817	ERJ6GEYJ102V	1K 1/10W	[M]
R818	ERJ6GEYJ102V	1K 1/10W	[M]
R819	ERJ6GEYJ471V	470 1/10W	[M]
R820	ERJ6GEYJ471V	470 1/10W	[M]
R821	ERJ6GEYJ271V	270 1/10W	[M]
R822	ERJ6GEYJ271V	270 1/10W	[M]
R823	ERJ6GEYJ122V	1.2K 1/10W	[M]
R824	ERJ6GEYJ122V	1.2K 1/10W	[M]
R825	ERJ6GEYJ102V	1K 1/10W	[M]
R826	ERJ6GEYJ271V	270 1/10W	[M]
R827	ERJ6GEYJ472V	4.7K 1/10W	[M]
R828	ERJ6GEYJ472V	4.7K 1/10W	[M]
R829	ERJ6GEYJ471V	470 1/10W	[M]
R830	ERJ6GEYJ471V	470 1/10W	[M]
R831	ERJ6GEYJ470V	47 1/10W	[M]
R832	ERJ6GEYJ221V	220 1/10W	[M]
R833	ERJ6GEYJ472V	4.7K 1/10W	[M]
R834	ERJ6GEYJ331V	330 1/10W	[M]
R835	ERJ6GEYJ331V	330 1/10W	[M]
R836	ERJ6GEYJ331V	330 1/10W	[M]
R837	ERJ6GEYJ331V	330 1/10W	[M]
R838	ERJ6GEYJ331V	330 1/10W	[M]
R839	ERJ6GEYJ331V	330 1/10W	[M]
R840	ERJ6GEYJ103V	10K 1/10W	[M]
R841	ERJ6GEYJ331V	330 1/10W	[M]
R842	ERJ6GEYJ472V	4.7K 1/10W	[M]
R843	ERJ6GEYJ221V	220 1/16W	[M]
R844	ERJ6GEYJ331V	330 1/10W	[M]
R845	ERJ6GEYJ331V	330 1/10W	[M]
R846	ERJ6GEYJ152V	1.5K 1/10W	[M]
R847	ERJ6GEYJ272V	2.7K 1/10W	[M]
R848	ERJ6GEYJ272V	2.7K 1/10W	[M]
R849	ERJ6GEYJ392V	3.9K 1/10W	[M]
R850	ERJ6GEYJ392V	3.9K 1/10W	[M]
R851	ERJ6GEYJ102V	1K 1/10W	[M]
R852	ERJ6GEYJ102V	1K 1/10W	[M] ⚠
R853	ERJ6GEYJ393V	39K 1/10W	[M] ⚠
R854	ERJ6GEYJ183V	18K 1/10W	[M]
R857	ERJ6GEYJ103V	10K 1/10W	[M]
R858	ERJ6GEYJ103V	10K 1/10W	[M]
R859	ERJ6GEYJ103V	10K 1/10W	[M]
R860	ERJ6GEYJ560V	56 1/10W	[M]
R861	ERJ6GEYJ104V	100K 1/10W	[M]
R862	ERJ6GEYJ391V	390 1/10W	[M]
R863	ERJ6GEYJ561V	560 1/10W	[M]
R864	ERJ6GEYJ561V	560 1/10W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R865	ERJ6GEYJ222V	2.2K 1/10W	[M]
R866	ERJ6GEYJ223V	22K 1/10W	[M]
R867	ERJ6GEYJ561V	560 1/10W	[M]
R868	ERJ6GEYJ561V	560 1/10W	[M]
R869	ERJ6GEYJ102V	1K 1/10W	[M]
R870	ERJ6GEYJ102V	1K 1/10W	[M]
R871	ERJ6GEYJ561V	560 1/10W	[M]
R872	ERJ6GEYJ561V	560 1/10W	[M]
R873	ERJ6GEYJ331V	330 1/10W	[M]
R874	ERJ6GEYJ472V	4.7K 1/10W	[M]
R875	ERJ6GEYJ102V	1K 1/10W	[M]
R876	ERJ6GEYJ561V	560 1/10W	[M]
R877	ERJ6GEYJ153V	15K 1/10W	[M]
R878	ERJ6GEYJ153V	15K 1/10W	[M]
R881	ERJ6GEYJ101V	100 1/10W	[M]
R882	ERJ6GEYJ105V	1M 1/10W	[M]
R883	ERJ6GEYJ472V	4.7K 1/10W	[M]
R884	ERJ6GEYJ331V	330 1/10W	[M]
R885	ERJ6GEYJ331V	330 1/10W	[M]
R888	ERJ6GEYJ331V	330 1/10W	[M]
R889	ERJ6GEYJ331V	330 1/10W	[M]
R890	ERJ6GEYJ103V	10K 1/10W	[M]
R901	ERDS2TJ101T	100 1/4W	[M]
R902	ERDS2TJ101T	100 1/4W	[M]
R903	ERDS2TJ101T	100 1/4W	[M]
R904	ERDS2TJ101T	100 1/4W	[M]
R905	ERDS2TJ101T	100 1/4W	[M]
R906	ERDS2TJ101T	100 1/4W	[M]
R907	ERDS2TJ101T	100 1/4W	[M]
R908	ERDS2TJ101T	100 1/4W	[M]
R909	ERDS2TJ101T	100 1/4W	[M]
R910	ERDS2TJ103T	10K 1/4W	[M]
R911	ERDS2TJ101T	100 1/4W	[M]
R912	ERDS2TJ101T	100 1/4W	[M]
R913	ERDS2TJ101T	100 1/4W	[M]
R914	ERDS2TJ101T	100 1/4W	[M]
R915	ERDS2TJ221T	220 1/4W	[M]
R916	ERDS2TJ221T	220 1/4W	[M]
R917	ERDS2TJ101T	100 1/4W	[M]
R918	ERDS2TJ221T	220 1/4W	[M]
R921	ERDS2TJ102T	1K 1/4W	[M]
R922	ERDS2TJ102T	1K 1/4W	[M]
R923	ERDS2TJ122T	1.2K 1/4W	[M]
R924	ERDS2TJ182T	1.8K 1/4W	[M]
R925	ERDS2TJ222T	2.2K 1/4W	[M]
R926	ERDS2TJ272T	2.7K 1/4W	[M]
R927	ERDS2TJ472T	4.7K 1/4W	[M]
R928	ERDS2TJ682T	6.8K 1/4W	[M]
R929	ERDS2TJ103T	10K 1/4W	[M]
R930	ERDS2TJ223T	22K 1/4W	[M]
R932	ERDS2TJ331T	330 1/4W	[M]
R933	ERDS2TJ331T	330 1/4W	[M]
R934	ERDS2TJ331T	330 1/4W	[M]
R935	ERDS2TJ331T	330 1/4W	[M]
R936	ERDS2TJ331T	330 1/4W	[M]
R942	ERDS2TJ681T	680 1/4W	[M]
R945	ERDS2TJ102T	1K 1/4W	[M]
R946	ERDS2TJ102T	1K 1/4W	[M]
R948	ERDS2TJ331T	330 1/4W	[M]
R949	ERDS2TJ331T	330 1/4W	[M]
R950	ERDS2TJ331T	330 1/4W	[M]
R951	ERDS2TJ331T	330 1/4W	[M]
R952	ERDS2TJ271T	270 1/4W	[M]
R952	ERDS2TJ821T	820 1/4W	[M]
R953	ERDS2TJ271T	270 1/4W	[M]
R953	ERDS2TJ393T	39K 1/4W	[M]
R954	ERDS2TJ271T	270 1/4W	[M]
R955	ERDS2TJ271T	270 1/4W	[M]
R956	ERDS2TJ271T	270 1/4W	[M]
R957	ERDS2TJ271T	270 1/4W	[M]
R958	ERDS2TJ101T	100 1/4W	[M]
R959	ERDS2TJ331T	330 1/4W	[M]
R960	ERDS2TJ102T	1K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R961	ERDS2TJ102T	1K 1/4W	[M]
R962	ERDS2TJ122T	1.2K 1/4W	[M]
R963	ERDS2TJ182T	1.8K 1/4W	[M]
R964	ERDS2TJ222T	2.2K 1/4W	[M]
R965	ERDS2TJ272T	2.7K 1/4W	[M]
R966	ERDS2TJ472T	4.7K 1/4W	[M]
R967	ERDS2TJ682T	6.8K 1/4W	[M]
R968	ERDS2TJ103T	10K 1/4W	[M]
R971	ERDS2TJ102T	1K 1/4W	[M]
R972	ERDS2TJ102T	1K 1/4W	[M]
R972	ERDS2TJ821T	820 1/4W	[M]
R973	ERDS2TJ122T	1.2K 1/4W	[M]
R973	ERDS2TJ393T	39K 1/4W	[M]
R974	ERDS2TJ182T	1.8K 1/4W	[M]
R975	ERDS2TJ222T	2.2K 1/4W	[M]
R982	ERDS2TJ681T	680 1/4W	[M]
R983	ERDS2TJ681T	680 1/4W	[M]
R984	ERDS2TJ561T	560 1/4W	[M]
R985	ERDS2TJ472T	4.7K 1/4W	[M]
R986	ERDS2TJ474T	470K 1/4W	[M]
R987	ERDS2TJ222T	2.2K 1/4W	[M]
R988	ERDS2TJ471T	470 1/4W	[M]
R989	ERDS2TJ103T	10K 1/4W	[M]
R990	ERDS2TJ331T	330 1/4W	[M]
R991	ERDS2TJ471T	470 1/4W	[M]
R992	ERDS2TJ105T	1M 1/4W	[M]
R993	ERDS2TJ471T	470 1/4W	[M]
R994	ERDS2TJ101T	100 1/4W	[M]
R995	ERDS2TJ101T	100 1/4W	[M]
R1101	ERJ6GEYJ334A	330K 1/10W	[M]
R1102	ERJ6GEYJ104A	100K 1/10W	[M]
R1103	ERJ6GEYJ153A	15K 1/10W	[M]
R1104	ERJ6GEYJ153A	15K 1/10W	[M]
R1105	ERJ6GEYJ271A	270 1/10W	[M]
R1106	ERJ6GEYJ222A	2.2K 1/10W	[M]
R1107	ERJ6GEYJ390A	39 1/10W	[M]
R1108	ERJ6GEYJ390A	39 1/10W	[M]
R1109	ERJ6GEYJ432A	4.3K 1/10W	[M]
R1110	ERJ6GEYJ432A	4.3K 1/10W	[M]
R1111	ERJ6GEYJ222A	2.2K 1/10W	[M]
R1112	ERJ6GEYJ222A	2.2K 1/10W	[M]
R1115	ERJ6GEYJ394A	390K 1/10W	[M]
R1116	ERJ6GEYJ394A	390K 1/10W	[M]
R1117	ERJ6GEYJ274A	270K 1/10W	[M]
R1118	ERJ6GEYJ274A	270K 1/10W	[M]
R1121	ERJ6GEYJ333A	33K 1/10W	[M]
R1122	ERJ6GEYJ333A	33K 1/10W	[M]
R1123	ERJ6GEYJ103A	10K 1/10W	[M]
R1124	ERJ6GEYJ103A	10K 1/10W	[M]
R1125	ERJ6GEYJ102A	1K 1/10W	[M]
R1126	ERJ6GEYJ102A	1K 1/10W	[M]
R1131	ERJ6GEYJ683A	68K 1/10W	[M]
R1132	ERJ6GEYJ335A	3.3M 1/10W	[M]
R1133	ERJ6GEYJ332A	3.3K 1/10W	[M]
R1134	ERJ6GEYJ474A	470K 1/10W	[M]
R1139	ERJ6GEYJ103A	10K 1/10W	[M]
R1141	ERJ6GEYJ682A	6.8K 1/10W	[M]
R1142	ERJ6GEYJ682A	6.8K 1/10W	[M]
R1143	ERJ6GEYJ103A	10K 1/10W	[M]
R1144	ERJ6GEYJ103A	10K 1/10W	[M]
R1145	ERJ6GEYJ103A	10K 1/10W	[M]
R1146	ERJ6GEYJ103A	10K 1/10W	[M]
R1151	ERJ6GEYJ105A	1M 1/10W	[M]
R1152	ERJ6GEYJ105A	1M 1/10W	[M]
R1153	ERJ6GEYJ122A	1.2K 1/10W	[M]
R1154	ERJ6GEYJ122A	1.2K 1/10W	[M]
R1155	ERJ6GEYJ221A	220 1/10W	[M]
R1156	ERJ6GEYJ221A	220 1/10W	[M]
R1158	ERJ6GEYJ221A	220 1/10W	[M]
R1161	ERJ8GEYJ472A	4.7K 1/8W	[M]
R1162	ERJ6GEYJ472A	4.7K 1/10W	[M]
R1165	ERJ6GEYJ563A	56K 1/10W	[M]
R1166	ERJ6GEYJ104A	100K 1/10W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R1167	ERJ6GEYJ470A	47 1/10W	[M]
R1170	ERJ6GEYJ102A	1K 1/10W	[M]
R1172	ERJ6GEYJ331A	330 1/10W	[M]
R1173	ERJ6GEYJ103A	10K 1/10W	[M]
R1174	ERJ6GEYJ103A	10K 1/10W	[M]
R1176	ERJ6GEYJ472A	4.7K 1/10W	[M]
R1177	ERJ6GEYJ562A	5.6K 1/10W	[M]
R1178	ERJ6GEYJ1R2A	1.2 1/10W	[M]
R1179	ERJ6GEYJ272A	2.7K 1/10W	[M]
R1180	ERJ6GEYJ272A	2.7K 1/10W	[M]
R1181	ERJ6GEYJ332A	3.3K 1/10W	[M]
R1182	ERJ6GEYJ1R0A	1 1/10W	[M]
R1183	ERJ6GEYJ104A	100K 1/10W	[M]
R1184	ERJ6GEYJ104A	100K 1/10W	[M]
R1186	ERJ6GEYJ102A	1K 1/10W	[M]
R1188	ERJ6GEYJ102A	1K 1/10W	[M]
R1189	ERJ6GEYJ472A	4.7K 1/10W	[M]
R1190	ERJ6GEYJ104A	100K 1/10W	[M]
R1191	ERJ6GEYJ563A	56K 1/10W	[M]
R1192	ERJ6GEYJ470A	47 1/10W	[M]
R1195	ERJ6GEYJ104A	100K 1/10W	[M]
R1196	ERJ6GEYJ473A	47K 1/10W	[M]
R1197	ERJ6GEYJ473A	47K 1/10W	[M]
R1206	ERJ6GEYJ221A	220 1/10W	[M]
R1213	ERJ6GEYJ152A	1.5K 1/10W	[M]
R1215	ERJ6GEYJ222A	2.2K 1/10W	[M]
R1216	ERJ6GEYJ222A	2.2K 1/10W	[M]
R1220	ERJ8GEYJ472A	4.7K 1/8W	[M]
R1221	ERJ6GEYJ2R7A	2.7 1/10W	[M]
R1225	ERJ6GEYJ2R7A	2.7 1/10W	[M]
R1226	ERJ6GEYJ102A	1K 1/10W	[M]
R1227	ERJ6GEYJ102A	1K 1/10W	[M]
R1230	ERJ6GEYJ472A	4.7K 1/10W	[M]
R1232	ERJ6GEYJ102A	1K 1/10W	[M]
R1233	ERJ6GEYJ222A	2.2K 1/10W	[M]
R1234	ERJ6GEYJ472A	4.7K 1/10W	[M]
R1235	ERJ6GEYJ472A	4.7K 1/10W	[M]
R1236	ERJ6GEYJ472A	4.7K 1/10W	[M]
		CAPACITORS	
C1	ECEA1CKA101B	100 16V	[M]
C2	ECBT1E103ZF5	0.01 25V	[M]
C2	ECBT1E103ZF5	0.01 25V	[M]
C201	ECUV1H103KBN	0.01 50V	[M]
C202	ECUV1H103KBN	0.01 50V	[M]
C203	ECUV1H103KBN	0.01 50V	[M]
C205	ECUV1H101KBN	100P 50V	[M]
C206	ECUV1H101KBN	100P 50V	[M]
C207	ECUV1H101KBN	100P 50V	[M]
C208	ECUV1H101KBN	100P 50V	[M]
C213	ECEA1HKA4R7B	4.7 50V	[M]
C214	ECEA1HKA4R7B	4.7 50V	[M]
C215	ECUV1H681KBN	680P 50V	[M]
C216	ECUV1H681KBN	680P 50V	[M]
C217	ECUV1H330JCN	33P 50V	[M]
C218	ECUV1H330JCN	33P 50V	[M]
C219	ECUV1H103KBN	0.01 50V	[M]
C220	ECUV1H103KBN	0.01 50V	[M]
C229	ECUVNE104KBN	0.1 25V	[M]
C230	ECUVNE104KBN	0.1 25V	[M]
C233	ECUV1H470JCN	47P 50V	[M]
C234	ECUV1H470JCN	47P 50V	[M]
C235	ECUV1H470JCN	47P 50V	[M]
C236	ECUV1H103KBN	0.01 50V	[M]
C239	ECEA1CKA100B	10 16V	[M]
C240	ECEA1CKA100B	10 16V	[M]
C261	ECEA1HKA4R7B	4.7 50V	[M]
C262	ECEA1HKA4R7B	4.7 50V	[M]
C263	ECUV1H101KBN	100P 50V	[M]
C264	ECUV1H101KBN	100P 50V	[M]
C265	ECUV1H470JCN	47P 50V	[M]
C266	ECUV1H470JCN	47P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C267	ECUV1H102KBN	1000P 50V	[M]
C268	ECUV1H102KBN	1000P 50V	[M]
C269	ECEA1CKA100B	10 16V	[M]
C270	ECEA1CKA100B	10 16V	[M]
C271	ECUV1H103KBN	0.01 50V	[M]
C272	ECUV1H103KBN	0.01 50V	[M]
C273	ECEA1HKA3R3B	3.3 50V	[M]
C275	ECEA1CKA220B	22 16V	[M]
C280	RCA1AM102BT	1000P 10V	[M]
C301	ECUV1H101KBN	100P 50V	[M]
C302	ECUV1H101KBN	100P 50V	[M]
C303	ECUV1H330JCN	33P 50V	[M]
C304	ECUV1H330JCN	33P 50V	[M]
C305	ECEA1CKA100B	10 16V	[M]
C306	ECEA1CKA100B	10 16V	[M]
C307	ECEA1CKA100B	10 16V	[M]
C308	ECEA1CKA100B	10 16V	[M]
C309	ECUV1H101KBN	100P 50V	[M]
C310	ECUV1H101KBN	100P 50V	[M]
C311	ECUV1H102KBN	1000P 50V	[M]
C312	ECUV1H470JCN	47P 50V	[M]
C313	ECUV1H103KBN	0.01 50V	[M]
C314	ECUV1H103KBN	0.01 50V	[M]
C315	ECEA1CKA100B	10 16V	[M]
C316	ECEA1CKA100B	10 16V	[M]
C318	ECEA1CKA100B	10 16V	[M]
C321	ECUV1H103KBN	0.01 50V	[M]
C322	ECUV1H103KBN	0.01 50V	[M]
C323	ECEA1HKA010B	1 50V	[M]
C324	ECEA1HKA4R7B	4.7 50V	[M]
C325	ECUV1H101KBN	100P 50V	[M]
C326	ECUV1H102KBN	1000P 50V	[M]
C327	ECUV1H103KBN	0.01 50V	[M]
C328	ECUV1H103KBN	0.01 50V	[M]
C329	ECEA1CKA100B	10 16V	[M]
C330	ECEA1CKA100B	10 16V	[M]
C331	ECUV1H103KBN	0.01 50V	[M]
C332	ECEA1AKN100B	10 10V	[M]
C333	ECEA1HKA3R3B	3.3 50V	[M]
C351	ECEA1CKA330B	33 16V	[M]
C352	ECUVNE104KBN	0.1 25V	[M]
C353	ECEA0JKA101B	100 6.3V	[M]
C354	ECEA0JKA221B	220 6.3V	[M]
C355	ECEA1HKA2R2B	2.2 50V	[M]
C371	ECEA1HKA4R7B	4.7 50V	[M]
C372	ECUVNE104KBN	0.1 25V	[M]
C381	ECUV1H103KBN	0.01 50V	[M]
C382	ECUV1H103KBN	0.01 50V	[M]
C383	ECEA1CKA100B	10 16V	[M]
C384	ECEA1CKA100B	10 16V	[M]
C385	ECUV1H103KBN	0.01 50V	[M]
C386	ECUV1H103KBN	0.01 50V	[M]
C391	ECUV1C683KBN	0.068 16V	[M]
C392	ECUV1C683KBN	0.068 16V	[M]
C393	ECEA1HKA4R7B	4.7 50V	[M]
C401	ECUV1E223KBN	0.022 25V	[M]
C402	ECUV1H103KBN	0.01 50V	[M]
C403	ECUV1E223KBN	0.022 25V	[M]
C404	ECEA0JKA470B	47 6.3V	[M]
C405	ECUVNE104KBN	0.1 25V	[M]
C406	ECUV1H331KBN	330P 50V	[M]
C451	ECUV1H103KBN	0.01 50V	[M]
C452	ECUV1H103KBN	0.01 50V	[M]
C453	ECUV1E223KBN	0.022 25V	[M]
C456	ECUV1H103KBN	0.01 50V	[M]
C457	ECEA0JKA470B	47 6.3V	[M]
C458	ECUVNE104KBN	0.1 25V	[M]
C459	ECUVNE104KBN	0.1 25V	[M]
C501	ECBT1H471KB5	470P 50V	[M]
C502	ECBT1H471KB5	470P 50V	[M]
C503	ECBT1H471KB5	470P 50V	[M]
C504	ECBT1H471KB5	470P 50V	[M]
C505	ECBT1H471KB5	470P 50V	[M]

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Ref. No.	Part No.	Part Name & Description	Remarks
C506	ECBT1H471KB5	470P 50V	[M]
C507	ECBT1H180JC5	18P 50V	[M]
C508	ECBT1H180JC5	18P 50V	[M]
C509	ECBT1H220JC5	22P 50V	[M]
C510	ECBT1H220JC5	22P 50V	[M]
C511	ECBT1H220JC5	22P 50V	[M]
C512	ECBT1H220JC5	22P 50V	[M]
C513	ECBT1H473KB5	0.047 50V	[M]
C514	ECEA1CKA220B	22 16V	[M]
C515	ECKR1H103ZF5	0.01 50V	[M]
C516	ECKR1H103ZF5	0.01 50V	[M]
C517	ECBT1C103NS5	0.01 16V	[M]
C520	ECBT1H104KB5	0.1 50V	[M]
C521	ECBT1H473KB5	0.047 50V	[M]
C522	ECBT1H473KB5	0.047 50V	[M]
C523	ECBT1H473KB5	0.047 50V	[M]
C524	ECBT1H473KB5	0.047 50V	[M]
C525	ECBT1H473KB5	0.047 50V	[M]
C526	ECBT1H473KB5	0.047 50V	[M]
C527	ECA0JM471B	470 6.3V	[M]
C529	ECBT1H102KB5	1000P 50V	[M]
C530	ECBT1H102KB5	1000P 50V	[M]
C531	ECEA2AU100B	10 100V	[M]
C532	ECBT1H150JC5	15P 50V	[M]
C533	ECBT1H150JC5	15P 50V	[M]
C534	ECEA2AU100B	10 100V	[M]
C537	ECBT1H473KB5	0.047 50V	[M]
C538	ECBT1H473KB5	0.047 50V	[M]
C539	ECEA1HAY4R7S	4.7 50V	[M]
C540	ECEA1HAY4R7S	4.7 50V	[M]
C565	ECBT1C103NS5	0.01 16V	[M]
C566	RCE1VFW472BJ	4700P 35V	[M] ⚠
C567	RCE1VFW562BJ	5600P 35V	[M] ⚠
C568	RCE1VFW562BJ	5600P 35V	[M] ⚠
C569	RCE1VFW472BJ	4700P 35V	[M] ⚠
C570	ECQU2A104KL3	0.1 100V	[M]
C571	ECQU2A104KL3	0.1 100V	[M]
C572	ECBT1H102KB5	1000P 50V	[M]
C573	ECEA1EM331B	330 25V	[M]
C574	ECEA1HM470B	47 50V	[M]
C575	ECBT1H103KB5	0.01 50V	[M]
C576	ECEA1EM101B	100 25V	[M]
C577	ECBT1H103KB5	0.01 50V	[M]
C578	ECEA1AKA330B	33 10V	[M]
C579	ECEA1CKA470B	47 16V	[M]
C580	ECBT1H102KB5	1000P 50V	[M]
C581	ECEA1HKA4R7B	4.7 50V	[M]
C582	ECEA1HM101B	100 50V	[M]
C583	ECEA1JM101B	100 63V	[M] ⚠
C588	ECKR2H102ZF5	1000P 500V	[M]
C589	ECEA1HM100B	10 50V	[M]
C591	ECA1EM222B	2200 25V	[M] ⚠
C592	ECBT1H103KB5	0.01 50V	[M]
C593	RCEA1C102B-S	1000P 16V	[M]
C594	RCEA1C102B-S	1000P 16V	[M] ⚠
C595	ECEA1VKA4R7B	4.7 35V	[M]
C596	ECBT1H103KB5	0.01 50V	[M]
C597	ECEA1AKA220B	22 10V	[M]
C598	ECBT1H102KB5	1000P 50V	[M]
C599	ECQE1104KF3	0.1 100V	[M]
C601	ECBT1H101KB5	100P 50V	[M]
C602	ECBT1H101KB5	100P 50V	[M]
C603	ECBT1H104KB5	0.1 50V	[M]
C604	ECBT1H561KB5	560P 50V	[M]
C605	ECBT1H561KB5	560P 50V	[M]
C606	ECBT1H561KB5	560P 50V	[M]
C607	ECBT1H561KB5	560P 50V	[M]
C608	ECBT1H561KB5	560P 50V	[M]
C609	ECBT1H561KB5	560P 50V	[M]
C610	ECBT1H561KB5	560P 50V	[M]
C611	ECEA1CKA100B	10 16V	[M]
C612	ECBT1C103MS5	0.01 16V	[M]
C613	ECBT1C103MS5	0.01 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C614	ECEA1HKA2R2B	2.2 50V	[M]
C615	ECBT1H150JC5	15P 50V	[M]
C616	ECBT1H180JC5	18P 50V	[M]
C617	ECBT1H680JC5	68P 50V	[M]
C618	ECBT1H560J5	56P 50V	[M]
C619	ECBT1H680JC5	68P 50V	[M]
C620	ECBT1H560J5	56P 50V	[M]
C621	ECBT1H102KB5	1000P 50V	[M]
C622	ECBT1H331KB5	330P 50V	[M]
C623	ECEA0JKA101B	100 6.3V	[M]
C624	ECBT1H102KB5	1000P 50V	[M]
C625	ECBT1H102KB5	1000P 50V	[M]
C626	ECEA0JM102B	1000 6.3V	[M]
C627	ECBT1H103KB5	0.01 50V	[M]
C628	ECBT1H561KB5	560P 50V	[M]
C629	ECEA1AKA220B	22 10V	[M]
C630	ECBT1H104KB5	0.1 50V	[M]
C631	ECBT1H104KB5	0.1 50V	[M]
C632	ECEA1HKA0R1B	0.1 50V	[M]
C633	ECEA1CKA100B	10 16V	[M]
C634	ECBT1H103KB5	0.01 50V	[M]
C635	ECBT1H103KB5	0.01 50V	[M]
C636	ECEA1HKA3R3B	3.3 50V	[M]
C638	ECBT1H103KB5	0.01 50V	[M]
C640	ECBT1H223KB5	0.022 50V	[M]
C641	ECBT1H223KB5	0.022 50V	[M]
C642	ECEA1VKA220B	22 35V	[M]
C643	ECEA1VKA220B	22 35V	[M]
C651	ECBT1H101KB5	100P 50V	[M]
C652	ECBT1H101KB5	100P 50V	[M]
C653	ECBT1H104KB5	0.1 50V	[M]
C656	ECBT1H102KB5	1000P 50V	[M]
C657	ECEA1HKA3R3B	3.3 50V	[M]
C658	ECBT1H153KB5	0.015 50V	[M]
C659	ECEA1HKA4R7B	4.7 50V	[M]
C660	ECBT1H102KB5	1000P 50V	[M]
C661	ECBT1C103MS5	0.01 16V	[M]
C662	RCE1HKA010BG	1P 50V	[M]
C663	ECBT1H101KB5	100P 50V	[M]
C664	ECBT1H471KB5	470P 50V	[M]
C665	RCE1HKA010BG	1P 50V	[M]
C666	ECA1AM471B	470 10V	[M]
C667	ECBT1C103MS5	0.01 16V	[M]
C668	RCE1HKA010BG	1P 50V	[M]
C669	RCE1HKA010BG	1P 50V	[M]
C670	ECEA1CKA100B	10 16V	[M]
C671	ECBT1H102KB5	1000P 50V	[M]
C674	ECBT1H104KB5	0.1 50V	[M]
C701	ECEA0JKA330I	33 6.3V	[M]
C702	ECUZ1E104MBN	0.1 25V	[M]
C703	ECEA0JKA101I	100 6.3V	[M]
C704	ECUZ1E104MBN	0.1 25V	[M]
C706	ECUZ1H272KBN	2700P 50V	[M]
C707	ECUZ1E273KBN	0.027 25V	[M]
C710	ECUZ1H121KCN	120P 50V	[M]
C711	ECUZ1E104ZFN	0.1 25V	[M]
C712	ECUZ1E104ZFN	0.1 25V	[M]
C713	ECUZ1E104MDN	0.1 25V	[M]
C714	ECEA0JKA101I	100 6.3V	[M]
C715	ECUZ1H272KBN	2700P 50V	[M]
C716	ECUZ1H821KBN	820P 50V	[M]
C717	ECUZ1E104ZFN	0.1 25V	[M]
C718	ECUZ1C224KBN	0.22 16V	[M]
C721	ECUZ1H100DCN	10P 50V	[M]
C722	ECUZ1H100DCN	10P 50V	[M]
C723	ECEA1AKA221I	220 10V	[M]
C724	ECUZ1E104MBN	0.1 25V	[M]
C725	ECUZ1H102KBN	1000P 50V	[M]
C726	ECUZ1H102KBN	1000P 50V	[M]
C727	ECA1HAK010XI	1 50V	[M]
C728	ECA1HAK010XI	1 50V	[M]
C730	ECUZ1E104ZFN	0.1 25V	[M]
C731	ECEA0JKA221I	220 6.3V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C732	ECEA0JKA221I	220 6.3V	[M]
C733	ECUZ1E104MBN	0.1 25V	[M]
C734	ECEA1AKA221I	220 10V	[M]
C735	ECUZ1E104ZFN	0.1 25V	[M]
C736	ECUZ1E104ZFN	0.1 25V	[M]
C737	ECUZ1E104ZFN	0.1 25V	[M]
C738	ECUZ1H103KBN	0.01 50V	[M]
C739	ECUZ1H152KBN	1500P 50V	[M]
C742	ECUZ1E273KBN	0.027 25V	[M]
C743	ECUZ1E104ZFN	0.1 25V	[M]
C744	ECUZ1E822KBN	8200P 25V	[M]
C745	ECUZ1H102KBN	1000P 50V	[M]
C747	ECUZ1H181KCN	180P 50V	[M]
C749	ECUZ1H222KBN	2200P 50V	[M]
C750	ECUZ1E104MBN	0.1 25V	[M]
C751	ECUZ1E104MBN	0.1 25V	[M]
C752	ECUZ1H102KBN	1000P 50V	[M]
C753	ECUZ1H471KBM	470P 50V	[M]
C754	ECUZ1H471KBN	470P 50V	[M]
C801	ECUV1H222KBN	2200P 50V	[M]
C802	ECUV1H222KBN	2200P 50V	[M]
C803	ECEA1HKA4R7B	4.7 50V	[M]
C804	ECEA1HKA4R7B	4.7 50V	[M]
C805	ECEA1HKAR47B	0.47 50V	[M]
C806	ECEA1HKAR47B	0.47 50V	[M]
C807	ECUVNE104KBN	0.1 25V	[M]
C808	ECUVNE104KBN	0.1 25V	[M]
C809	ECEA1HKA4R7B	4.7 50V	[M]
C810	ECUV1H222KBN	2200P 50V	[M]
C811	ECUV1H561KBN	560P 50V	[M]
C812	ECUV1H471KBN	470P 50V	[M]
C813	ECEA0JKA470B	47 6.3V	[M]
C814	ECEA0JKA470B	47 6.3V	[M]
C815	ECUZ1C474ZFN	0.47 16V	[M]
C816	ECUZ1C474ZFN	0.47 16V	[M]
C817	ECEA1HKA010B	1 50V	[M]
C818	ECEA1CKA100B	10 16V	[M]
C819	ECUV1H103KBN	0.01 50V	[M]
C820	ECUV1H103KBN	0.01 50V	[M]
C821	ECUV1H222KBN	2200P 50V	[M]
C822	ECUV1H222KBN	2200P 50V	[M]
C823	ECUZ1C474ZFN	0.47 16V	[M]
C824	ECUZ1C474ZFN	0.47 16V	[M]
C825	ECEA1HKA010B	1 50V	[M]
C826	ECEA1HKA010B	1 50V	[M]
C827	ECUV1H103KBN	0.01 50V	[M]
C828	ECUV1H103KBN	0.01 50V	[M]
C829	ECUV1H222KBN	2200P 50V	[M]
C830	ECUV1H222KBN	2200P 50V	[M]
C831	ECUZ1C474ZFN	0.47 16V	[M]
C832	ECEA1HKA4R7B	4.7 50V	[M]
C833	ECEA0JKA470B	47 6.3V	[M]
C834	ECUV1H222KBN	2200P 50V	[M]
C836	EEAFC0J101B	100P 6.3V	[M]
C837	ECEA0JKA470B	47 6.3V	[M]
C838	ECEA0JKA470B	47 6.3V	[M]
C839	ECEA0JKA470B	47 6.3V	[M]
C840	ECUV1H331KBN	330P 50V	[M]
C841	ECUV1H103KBN	0.01 50V	[M]
C842	ECUV1H050DCN	5P 50V	[M]
C843	ECUV1H120JCN	12P 50V	[M]
C844	ECUVNA105KBN	10 10V	[M]
C845	ECUVNA105KBN	10 10V	[M]
C846	ECUVNA105KBN	10 10V	[M]
C847	ECUV1E223KBN	0.022 25V	[M]
C848	ECUVNA105KBN	10 10V	[M]
C849	EEAFC0J101B	100P 6.3V	[M]
C850	ECUV1H101JCN	100 50V	[M]
C851	ECUV1H222KBN	2200P 50V	[M]
C852	ECUV1H222KBN	2200P 50V	[M]
C853	ECEA1HKA4R7B	4.7 50V	[M]
C854	ECEA1HKA4R7B	4.7 50V	[M]
C855	ECEA1HKAR47B	0.47 50V	[M]

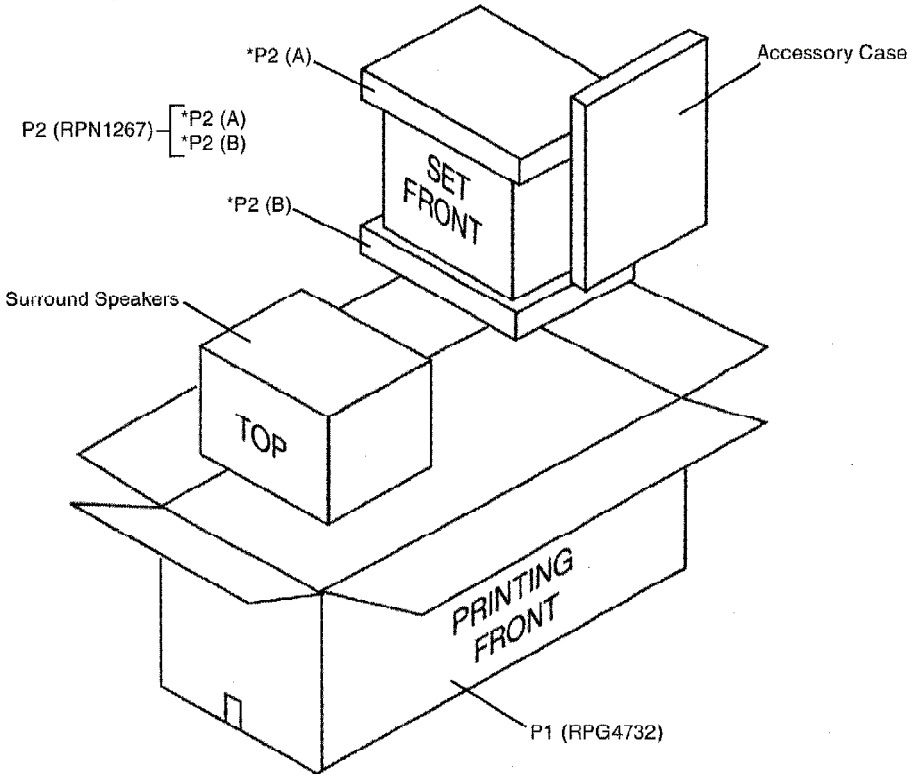
Ref. No.	Part No.	Part Name & Description	Remarks
C856	ECEA1HKAR47B	0.47 50V	[M]
C857	ECUVNE104KBN	0.1 25V	[M]
C858	ECUVNE104KBN	0.1 25V	[M]
C859	ECEA1HKA4R7B	4.7 50V	[M]
C860	ECUV1H222KBN	2200P 50V	[M]
C861	ECUV1H561KBN	560P 50V	[M]
C862	ECUV1H471KBN	470P 50V	[M]
C863	ECEA0JKA470B	47 6.3V	[M]
C864	ECEA0JKA470B	47 6.3V	[M]
C865	ECEA1HKA010B	1 50V	[M]
C866	ECEA1HKA010B	1 50V	[M]
C867	ECEA1HKA010B	1 50V	[M]
C868	ECEA1HKA010B	1 50V	[M]
C869	ECUV1H103KBN	0.01 50V	[M]
C870	ECEA1HKA010B	1 50V	[M]
C871	ECUV1H222KBN	2200P 50V	[M]
C872	ECUV1H222KBN	2200P 50V	[M]
C873	ECUZ1C474ZFN	0.47 16V	[M]
C874	ECUZ1C474ZFN	0.47 16V	[M]
C875	ECEA1CKA100B	10 16V	[M]
C876	ECEA1CKA100B	10 16V	[M]
C877	ECUV1H103KBN	0.01 50V	[M]
C878	ECUV1H103KBN	0.01 50V	[M]
C879	ECUV1H222KBN	2200P 50V	[M]
C880	ECUV1H222KBN	2200P 50V	[M]
C881	ECEA1HKA010B	1 50V	[M]
C882	ECEA1CKA100B	10 16V	[M]
C883	ECEA0JKA470B	47 6.3V	[M]
C884	ECUV1H222KBN	2200P 50V	[M]
C886	EEAFC0J101B	100P 6.3V	[M]
C887	ECEA0JKA470B	47 6.3V	[M]
C888	ECEA0JKA470B	47 6.3V	[M]
C889	ECUV1H103KBN	0.01 50V	[M]
C891	ECUV1H103KBN	0.01 50V	[M]
C892	ECEA0JKA470B	47 6.3V	[M]
C893	ECUV1E223KBN	0.022 25V	[M]
C894	ECUV1E223KBN	0.022 25V	[M]
C895	ECUV1E223KBN	0.022 25V	[M]
C896	ECUV1E223KBN	0.022 25V	[M]
C897	ECUV1E223KBN	0.022 25V	[M]
C898	ECUVNA105KBN	10 10V	[M]
C899	ECEA0JKA470B	47 6.3V	[M]
C1101	ECUZ1H102KBN	1000P 50V	[M]
C1102	ECUZ1H102KBN	1000P 50V	[M]
C1103	ECUZ1H681KBN	680P 50V	[M]
C1104	ECFR1C223KR	0.022 16V	[M]
C1105	ECUZ1H122KBN	1200P 50V	[M]
C1106	ECUZ1H122KBN	1200P 50V	[M]
C1108	ECEA1CKA330B	33 16V	[M]
C1109	ECEA1CKA101B	100 16V	[M]
C1111	ECUZ1H821KBN	820P 50V	[M]
C1112	ECUZ1H821KBN	820P 50V	[M]
C1113	ECEA0JKA221B	220 6.3V	[M]
C1114	ECEA0JKA221B	220 6.3V	[M]
C1115	ECFR1C333JR	0.033 16V	[M]
C1116	ECFR1C333JR	0.033 16V	[M]
C1117	ECEA1HKM010B	1 50V	[M]
C1118	ECEA1HKM010B	1 50V	[M]
C1119	ECEA1HKA4R7B	4.7 50V	[M]
C1120	ECEA1HKA4R7B	4.7 50V	[M]
C1121	ECEA1HKA010B	1 50V	[M]
C1122	ECEA1HKA010B	1 50V	[M]
C1123	ECUZ1H182KBN	1800P 50V	[M]
C1124	ECUZ1H182KBN	1800P 50V	[M]
C1125	ECFR1C473MR	0.047 16V	[M]
C1126	ECFR1C473MR	0.047 16V	[M]
C1127	ECUZ1H103KBN	0.01 50V	[M]
C1128	ECUZ1H103KBN	0.01 50V	[M]
C1129	ECUZ1H821KBN	820P 50V	[M]
C1130	ECUZ1H821KBN	820P 50V	[M]
C1131	ECUZ1H821KBN	820P 50V	[M]
C1132	ECUZ1H821KBN	820P 50V	[M]
C1133	ECEA1HKA4R7B	4.7 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1134	ECEA1HKA4R7B	4.7 50V	[M]
C1135	ECUZ1H102KBN	1000P 50V	[M]
C1136	ECUZ1H102KBN	1000P 50V	[M]
C1139	ECEA1HKA2R2B	2.2 50V	[M]
C1140	ECEA1CKA100B	10 16V	[M]
C1141	ECEA1HKA0R1B	0.1 50V	[M]
C1142	ECFR1C223KR	0.022 16V	[M]
C1143	ECEA1HKA4R7B	4.7 50V	[M]
C1144	ECEA1HKA4R7B	4.7 50V	[M]
C1145	ECEA1CKA100B	10 16V	[M]
C1146	ECEA1CKA100B	10 16V	[M]
C1147	ECUZ1H152KBN	1500P 50V	[M]
C1148	ECUZ1H152KBN	1500P 50V	[M]
C1150	ECEA1AKA470B	47 10V	[M]
C1151	ECEA1CKA100B	10 16V	[M]
C1152	ECEA1CKA100B	10 16V	[M]
C1153	ECUZ1H102KBN	1000P 50V	[M]
C1154	ECUZ1H102KBN	1000P 50V	[M]
C1162	ECEA1CKA101B	100 16V	[M]
C1165	ECEA1CKA100B	10 16V	[M]
C1166	ECEA1CKA100B	10 16V	[M]
C1173	ECUZ1H103KBN	0.01 50V	[M]
C1174	ECEA1HKA4R7B	4.7 50V	[M]
C1175	ECEA1VU221B	220 35V	[M]
C1176	ECQV1H473JZ3	0.047 50V	[M]
C1177	ECUZ1H102KBN	1000P 50V	[M]
C1178	ECUZ1H102KBN	1000P 50V	[M]
C1179	ECUZ1H103KBN	0.01 50V	[M]
C1180	ECUZ1H103KBN	0.01 50V	[M]
C1181	ECUZ1H103KBN	0.01 50V	[M]
C1182	ECEA1HKA4R7B	4.7 50V	[M]
C1183	ECQV1H474JZ3	0.47 50V	[M]
C1184	ECQP1152JZT	1500P 100V	[M]
C1185	ECQP2A472JZT	4700P 100V	[M]
C1186	ECEA1AKA470B	47 10V	[M]
C1187	ECUZ1H101KBN	100P 50V	[M]
C1188	ECUZ1H101KBN	100P 50V	[M]
C1193	ECUZ1H102KBN	1000P 50V	[M]
C1194	ECUZ1H102KBN	1000P 50V	[M]
C1201	ECEA1CKA101B	100 16V	[M]
C1202	ECUZ1E104ZFN	0.1 25V	[M]
0		CHIP JUMPER	
RJ701	ERJ6GEY0R00A	0 1/10W	[M]
RJ702	ERJ8GEY0R00A	0 1/8W	[M]
RJ703	ERJ8GEY0R00A	0 1/8W	[M]
RJ704	ERJ8GEY0R00A	0 1/8W	[M]
RJ707	ERJ8GEY0R00A	0 1/8W	[M]
RJ708	ERJ8GEY0R00A	0 1/8W	[M]
RJ709	ERJ8GEY0R00A	0 1/8W	[M]
RJ710	ERJ8GEY0R00A	0 1/8W	[M]
RJ712	ERJ8GEY0R00A	0 1/8W	[M]
RJ715	ERJ6GEY0R00A	0 1/10W	[M]
RJ716	ERJ6GEY0R00A	0 1/10W	[M]
RJ721	ERJ6GEY0R00A	0 1/10W	[M]
RJ722	ERJ6GEY0R00A	0 1/10W	[M]
RJ724	ERJ6GEY0R00A	0 1/10W	[M]
RJ727	ERJ6GEY0R00A	0 1/10W	[M]
RJ728	ERJ6GEY0R00A	0 1/10W	[M]
RJ731	ERJ6GEY0R00A	0 1/10W	[M]
RJ732	ERJ6GEY0R00A	0 1/10W	[M]
RJ734	ERJ6GEY0R00A	0 1/10W	[M]
RJ750	ERJ6GEY0R00A	0 1/10W	[M]
		TEST JUMPER	
TJ701	EYF8CU	TEST JUMPER	[M]

18.5. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG4732	PACKING CASE	[M]
P2	RPN1267	POLYFOAM	[M]
P3	RPFX0007	MIRAMAT BAG	[M]
		ACCESSORIES	
A1	RAK-SA959WK	REMOTE CONTROLLER	[M]
A1-1	RKK-SA958WK	R/C BATTERY COVER	[M]
A2	RJA0019-2K	AC CORD (SF)	[M] ⚠
A3	RQT5292-G	O/I BOOK	[M]
A3	RQT5293-R	O/I BOOK	[M]
A4	RSA0006-J	FM ANT	[M]
A5	RSA0029	AM LOOP ANT	[M]
A6	SJP5213-2	AC CORD ADAPTOR	[M]

18.6. Packaging



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